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# In the Supreme Court of the United States

OCTOBER TERM, 1983

FEDERAL ENERGY REGULATORY COMMISSION,
PETITIONER

*v.*

INTERSTATE NATURAL GAS ASSOCIATION OF AMERICA,
ET AL.

## PETITION FOR A WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE DISTRICT OF COLUMBIA CIRCUIT

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## QUESTION PRESENTED

The Natural Gas Policy Act of 1978 (NGPA), 15 U.S.C. 3301 *et seq.*, establishes maximum lawful prices—expressed either in specific dollar figures, or by reference to preexisting prices, per million British thermal units (Btu's)—for all "first sales" of natural gas delivered during any month, and authorizes the Federal Energy Regulatory Commission to issue rules defining technical and trade terms used in the Act. The question presented is whether the Commission's "Btu Rule" (18 C.F.R. 270.204(c)), which states that "[t]he maximum lawful price prescribed by the NGPA * * * for any first sale of natural gas applies to the Btu's actually delivered in that first sale," is consistent with that statutory mandate.

## PARTIES TO THE PROCEEDING

Federal Energy Regulatory Commission
Associated Gas Distributors
Interstate Natural Gas Association of America
Michigan Wisconsin Pipeline Company
Transcontinental Gas Pipe Line Company
Natural Gas Pipeline Company of America
Lone Star Gas Company
Mississippi River Transmission Corp.
Northern Natural Gas Company
Texas Gas Transmission Corporation
Valero Transmission Company
Panhandle Eastern Pipe Line Company
El Paso Natural Gas Company
Laclede Gas Company
Mobile Oil Corporation
General American Oil Company of Texas
Phillips Petroleum Company
Pennzoil Company
Shell Oil Company
Exxon Corporation
Getty Oil Company
Louisiana Land and Exploration Company
Conoco Inc.
The Superior Oil Co.
Texaco Inc.
Tenneco Oil Company
Houston Oil and Minerals Corp.
Gulf Oil Corporation
Placid Oil Company
Aminoil, USA, Inc.
Amoco Production Company
Union Oil Company of California
Sun Oil Company
Arco Oil and Gas Company
Chevron USA
Sun Exploration and Production Co.
Atlantic Richfield Company
Public Service Commission of Wisconsin

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## PETITION FOR A WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE DISTRICT OF COLUMBIA CIRCUIT

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The Solicitor General, on behalf of the Federal Energy Regulatory Commission, petitions for a writ of certiorari to review the judgment of the United States Court of Appeals for the District of Columbia Circuit in this case.

### OPINIONS BELOW

The opinion of the court of appeals (App., *infra*, 1a-31a) is reported at 716 F.2d 1. The orders of the Federal Energy Regulatory Commission (App., *infra*, 32a-50a, 51a-86a, 87a-92a) are published at 45 Fed. Reg. 49077, 46 Fed. Reg. 24537, and 47 Fed. Reg. 614, respectively.

### JURISDICTION

The judgment of the court of appeals (App., *infra*, 93a-98a) was entered on August 9, 1983. Petitions for

rehearing were denied on October 19, 1983 (App., *infra*, 99a-100a). The jurisdiction of this Court is invoked under 28 U.S.C. 1254(1) and 15 U.S.C. 3416(a)(4).

## STATUTE AND REGULATION INVOLVED

The pertinent provisions of the Natural Gas Policy Act of 1978, 15 U.S.C. 3301 *et seq.*, are set forth at App., *infra*, 101a-120a. The pertinent Commission regulation, 18 C.F.R. 270.204, is set forth at App., *infra*, 121a.

## STATEMENT

This case involves the validity of a rule issued by the Federal Energy Regulatory Commission[1] that specifies the methodology for determining the energy content of natural gas delivered in "first sales," for purposes of applying the maximum lawful price provisions of the Natural Gas Policy Act of 1978 (NGPA), 15 U.S.C. 3301 *et seq.*

1. The energy content of natural gas is measured in terms of British thermal units (Btu's). A Btu is generally understood to mean the amount of energy needed to raise the temperature of one pound of water one degree Fahrenheit. The Btu content of any given stream of natural gas will vary, depending on the particular mix of combustible and noncombustible constituents in the gas. In addition to combustible hydrocarbons, such as methane, natural gas often contains noncombustible substances, including water vapor. The water vapor capacity of any given natural gas stream is a function of the pressure and temperature to which the gas is subjected. Because water vapor has no available heat energy (*i.e.*, it cannot be made to combine with oxygen and

[1] Both the Federal Energy Regulatory Commission and its predecessor agency, the Federal Power Commission, are referred to herein as the "Commission."

generate heat through combustion), its presence in any given volume of natural gas displaces energy-producing hydrocarbon molecules, thereby reducing the effective heating value, or Btu content, of the gas. App., *infra*, 6a, 75a-76a.

2. As a matter of historical practice in the industry, natural gas was traditionally measured for pricing purposes according to volume, usually expressed in cents per thousand cubic foot units (Mcf's).[2] Following this Court's decision in *Phillips Petroleum Co.* v. *Wisconsin*, 347 U.S. 672 (1954), the Commission began to regulate producer sales of natural gas in interstate commerce pursuant to the Natural Gas Act, 15 U.S.C. 717 *et seq.* (NGA).[3] Consistent with the traditional industry practice, the prices set by the Commission for wellhead gas sales were expressed volumetrically.

For some years prior to the inception of Commission regulation of producer sales, many gas sales contracts had provided for adjustments to volume-based prices to reflect variations in the heating value of the gas. Those contracts generally provided for an increase (or decrease) in price to the extent the Btu content of the gas was above (or below) a given level. The Commission did not address the propriety of Btu adjustment provisions in gas sales contracts until 1961, when it announced, in a policy statement, that it would recognize such adjustment provisions in order to assure that gas of a minimum "pipeline quality" (*i.e.*, gas containing not less

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[2] In most natural gas transactions between producers and pipelines, gas is measured through an "orifice meter," which uses accepted principles of physics and chemistry to arrive at a standardized determination of the number of volume units delivered in a given time period (*e.g.*, Mcf's per day). *American Gas Association Measurement Manual* 40 (1963).

[3] Intrastate producer sales of natural gas did not come under federal regulation until the passage of the NGPA.

than 1,000 Btu's per Mcf) would be delivered in interstate commerce. See 26 Fed. Reg. 4614-4615 (1961). In subsequent proceedings, the Commission permitted price adjustments to reflect the heat content of the gas. See *Texaco, Inc.*, 33 F.P.C. 1228 (1965). See also *Sunray DX Oil Co.*, 29 F.P.C. 1079, 1082-1083 (1963). Thereafter, when the Commission established area and nationwide ceiling prices for producer gas sales, it expressed those prices on a volumetric (per Mcf) basis, although it also generally continued to allow some Btu adjustments. See *Area Rate Proceeding (Permian Basin Area)*, 34 F.P.C. 159, 223-224, 239, 240 (1965); *Area Rate Proceeding (Southern Louisiana Area)*, 46 F.P.C. 86, 142-144 (1971); *Just and Reasonable National Rates for Sales of Natural Gas*, 52 F.P.C. 1604, 1650, 1651-1652 (1974); *Just and Reasonable National Rates for Sales of Natural Gas*, 54 F.P.C. 3090, 3123, 3124-3125 (1975); *National Rates for Jurisdictional Sales of Natural Gas*, 56 F.P.C. 2698, 2806, 2807-2808 (1976). As the Commission had noted in its initial policy statement, however, these adjustments to volume-based prices were for the sole purpose of providing an incentive for the input of high Btu gas that could be mixed with gas otherwise too low in Btu content for pipeline use (App., *infra*, 79a). See *Texaco, Inc.*, 33 F.P.C. at 1235. The Commission did not suggest that its recognition of Btu adjustments was intended precisely to correlate price and heat content.[4]

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[4] Indeed, many of the early area rates provided no Btu adjustment for gas with a Btu content of between 1,000 and 1,050 Btu's per Mcf (App., *infra*, 80a n.4). See, *e.g.*, *Area Rate Proceeding (Permian Basin Area)*, 34 F.P.C. at 223. In addition, in some instances, small producers were exempted from quality adjustments on the de minimis principle; the Commission found that the burden and expense involved in the calculations would in most cases exceed the amount of the adjustment. See *id.* at 225.

For purposes of quantifying heat content under this less than precise "quality adjustment" approach, the Commission, in most instances, adopted a standard of measurement that required a test volume of gas (one cubic foot) to be saturated with water vapor at certain prescribed temperature and pressure conditions (60° F. and 30 inches of mercury).[5] This method, which was based on the general industry practice of determining heat content under standard laboratory conditions, is known as the "wet" method "because it require[s] the gas sample to be saturated with water vapor at a temperature and pressure combination where the capacity of natural gas to absorb water vapor is markedly higher than that existing at the temperature and pressure conditions under which most natural gas is sold" (App., *infra*, 7a). At the defined standard conditions, gas fully saturated with water vapor will contain approximately 820 pounds of water vapor per million cubic feet (MMcf) of total gas, or approximately 1.74% of the total volume (*id.* at 77a, 78a). Under typical delivery conditions, on the other hand, the maximum amount of water vapor in the gas stream will range from 7 to 70 pounds per MMcf (App., *infra*, 78a n.2).[6] Thus, it is common ground that the "wet" method "overstate[s] water vapor content for gas which, when actually delivered, [is] neither saturated with water vapor nor delivered at the 'standard' temperature or pressure. * * * This overstated water vapor content, in turn, caus[s] an understatement in

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[5] See *Texaco, Inc.*, 33 F.P.C. at 1238. See also 18 C.F.R. 2.56a(c)(1), 2.56b(d)(1).

[6] Indeed, gas sales contracts often provide that gas delivered to a pipeline is to contain only seven pounds of water per MMcf (App., *infra*, 67a n.17, 77a-78a). See also 18 C.F.R. 154.109(e)(2)(i) (Area Rates—Texas Gulf Coast Area); 18 C.F.R. 154.109a(d)(2)(i) (Area Rates—Other Southwest Area).

the number of Btu's assumed to be in the test sample of natural gas" (*id.* at 7a; see *id.* at 78a).

3. As this Court recently observed, by enacting the NGPA, "Congress comprehensively and dramatically changed the method of pricing natural gas produced in the United States." *Public Service Commission* v. *Mid-Louisiana Gas Co.*, No. 81-1889 (June 28, 1983), slip op. 1-2. In Title I of the NGPA, Congress fashioned a meticulously detailed scheme of maximum lawful prices for all "first sales" of natural gas delivered during any month.[7] Title I "establishes an exhaustive categorization of natural gas production, and sets forth a methodology for calculating an appropriate ceiling price within each category." *Mid-Louisiana*, slip op. 12. The incentive price for each category of gas is stated either in terms of a specific dollar figure per million Btu's, or by reference to a previously existing price, also expressed on a per million Btu basis. Although Congress provided detailed definitions of the various terms used in the NGPA, it defined "Btu" simply as "British thermal unit." 15 U.S.C. 3301(30). In another part of the NGPA, however, Congress authorized the Commission to administer the Act, "to prescribe * * * such rules and orders as it may find necessary or appropriate to carry out its functions under [the Act]" (15 U.S.C. 3411(a)), and, more specifically, "to define, by rule, accounting, technical, and trade terms used in [the Act]" (15 U.S.C. 3411(b)).

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[7] The term "first sale" is defined in the NGPA to include any sale of any volume of natural gas to a pipeline or local distribution company. 15 U.S.C. 3301(21). The term "deliver," when used with respect to any first sale of natural gas, is generally defined in the NGPA as "the physical delivery from the seller." 15 U.S.C. 3301(22). In addition, the statute provides that the maximum lawful ceiling prices "shall apply to the month of delivery without regard to the date of the sale or the date of the contract under which the sale occurs[.]" 15 U.S.C. 3311(b)(4)(B).

In Order No. 93, the initial order under review (App., *infra*, 33a-50a), the Commission issued a final rule (18 C.F.R. 270.204) that describes the "wet" method for determining the Btu content of gas sold under the NGPA (see App., *infra*, 50a). The Commission noted in its order, however, that the results obtained under standard test conditions "must be converted to figures that reflect the actual condition of the gas on delivery in order to properly price the gas" (*id.* at 43a).

In Order No. 93-A, the Commission denied rehearing of its initial order (App., *infra*, 51a-86a). The Commission noted that Congress in the NGPA "chose to establish energy-referenced prices (dollars per MMBtu) as opposed to volume-referenced prices (dollars per Mcf) * * * [and] left implementation of energy-referenced pricing * * * to the Commission" (*id.* at 59a). Because the "wet" method understates the heating value of gas at actual delivery conditions, the Commission reasoned that accurate pricing under the NGPA "can only be achieved by applying the prescribed maximum lawful price to the number of MMBtu's in a volume of gas at delivery conditions rather than to some theoretical quantity such as the number of MMBtu's at standard conditions" (*id.* at 63a; see also *id.* at 78a-79a).[8] The Commission observed that, under the NGA, "heating value was an arbitrarily-derived numerical factor used to make a quality adjustment to the volume-referenced price," whereas in "the NGPA energy-referenced 'ceiling prices' * * * heating value is the price determi-

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[8] The Commission explained that its implementation of the NGPA incentive pricing scheme so as to price heating value on an "as delivered" basis is basically consistent with its pricing of producer sales under the NGA. Thus, "[a]lthough the commodity priced [under the NGA] was volume rather than heating value," the Commission noted that it had "priced the commodity on an as-delivered basis" (App., *infra*, 61a).

nant" (*id.* at 66a). Accordingly, the Commission concluded (*id.* at 82a-83a):

> If gas is now to be priced on the basis of the heating energy actually delivered to a buyer, the former NGA adjustment procedures with respect to heating value are not technically correct for use in the energy-referenced pricing scheme. * * * They made sense for quality control purposes and for encouraging the delivery of high Btu gas. * * * Whatever previous usefulness may have derived for producer ratemaking purposes from the Btu adjustment procedures no longer exists. The procedures have now become a "vestigial organ" and are not an integral component of the NGPA pricing anatomy.

In a subsequent order (App., *infra*, 87a-92a), the Commission added a clarifying amendment to 18 C.F.R. 270.204, which states:

> (c) * * * The maximum lawful price prescribed by the NGPA and this part for any first sale of natural gas applies to the Btu's actually delivered in that first sale.

4. The court of appeals vacated the Commission's rule (App., *infra*, 1a-31a). The court observed that "[t]he NGPA does not expressly provide for either a 'wet' or a 'dry' determination of Btu content" (*id.* at 19a)[9] and that "there are no indications in the NGPA's legislative history to suggest that Congress' failure to define expressly Btu content indicates, by itself, a con-

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[9] The court of appeals referred to the rule at issue here as the "dry rule" because the court recognized that "natural gas generally contains far less water vapor under actual delivery conditions than under the saturated, laboratory conditions specified in the wet rule" (App., *infra*, 10a). However, it would be more accurate to refer to the Commission's rule as an "as delivered" rule, since it "measure[s] the Btu content of gas at the conditions under which natural gas is actually delivered for first sales" (*ibid.*).

scious policy preference for either the 'wet' or the 'dry' rule" (*id.* at 20a). The court nevertheless concluded that "it is most logical * * * to assume that Congress fixed [the NGPA] prices based on the 'wet' method of measuring Btu's" (*id.* at 23a).

In reaching this conclusion, the court expressed the view that the "wet" method was "the only method of measuring Btu's with which Congress was likely to have been familiar" when it enacted the NGPA (*id.* at 24a), and it pointed to certain references in the legislative history as "indicat[ing] at least indirect congressional incorporation of the wet rule into the NGPA's price structure" (*id.* at 25a). In addition, the court referred to "the likelihood" (*id.* at 26a) that Congress "may have assumed the 'Mcf' and 'MMBtu' commodity units to be, in many respects, equivalent" (*id.* at 25a). The court thus found the Commission's rule "to be inconsistent with the NGPA's language, structure, and legislative history" (*id.* at 29a) and "fundamentally at odds with the Btu measurement technique implicit in the NGPA" (*id.* at 30a).[10]

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[10] In rejecting the Commission's interpretation of the NGPA, the court of appeals noted that "[t]he Commission's technical experience with measuring Btu's is of limited usefulness in determining what Congress meant in setting ceiling prices for natural gas on a Btu basis. Unlike those situations in which Congress delegates to an agency the choice of methodologies or definitions, * * * the Commission itself concedes that it was given 'no independent authority under the NGPA to define "Btu,"' Brief for Respondent FERC at 28 n.28" (App., *infra*, 29a-30a). The court's reference was to a footnote in the Commission's brief in which the Commission, replying to respondents' arguments concerning alleged procedural defects in the promulgation of the Btu Rule, contended that the rule should be applied retroactively to the effective date of the NGPA because it was interpretive rather than legislative in effect. In its petition for rehearing en banc, the Commission argued that, even if the NGPA did not compel adoption of the Btu Rule, "Congress left the matter to the ultimate discretion of the Commission" (FERC Pet. for Rehearing at 14).

## REASONS FOR GRANTING THE PETITION

This case presents a question of fundamental importance to the proper implementation of the incentive pricing provisions of the NGPA. Under Title I of the NGPA, any natural gas delivered in a first sale is subject to the applicable maximum lawful price, which is expressed on a "per million Btu" basis. It thus is clear that ascertaining the precise Btu content of gas involved in a particular first sale is essential in order to price that gas under the NGPA.

In the orders at issue, the Commission ruled that Congress, by authorizing the collection of ceiling rates for each MMBtu delivered, intended that Btu content be measured for pricing purposes on an accurate, "as delivered" basis. The court of appeals, however, disregarded the Commission's reasonable construction of the statute it is charged with administering, and held that Congress implicitly incorporated into the NGPA a concededly inaccurate measurement rule that significantly understates the Btu content of gas delivered in a first sale. Thus, the court has held, not only that the Commission's rule is not mandated by the NGPA, but that the NGPA absolutely bars the Commission from issuing the rule as a matter of its discretion in implementing the Act. The former holding effectively disregards the settled rule of judicial deference to a reasonable agency construction of its own statute, and the latter holding is directly at odds with the express delegation of authority to the Commission to define technical terms used in the statute.

Moreover, unless overturned, the decision below would have a substantial impact on revenues collected by natural gas producers in the United States. There is a potential difference of approximately 1.74% in the ceiling prices producers may collect under the court's decision and the Commission's rule. Although the financial impact of the decision cannot be precisely deter-

mined, the Commission estimates that, for the period between December 1, 1978 (the effective date of the Btu Rule) and the present, the amounts at stake are well in excess of $1 billion. Accordingly, we submit that review by this Court is clearly warranted.

1. The court of appeals should have deferred to the Commission's reasonable construction of the NGPA.

As noted, the NGPA comprehensively altered the method of pricing natural gas produced in the United States. Prior to the NGPA, a dual pricing system existed, in which the rates for interstate producer sales of gas were regulated by the Commission on the basis of volume under the NGA's "just and reasonable" standard, and the rates for intrastate sales were not subject to federal regulation at all but instead were essentially left to the contracting parties.

Under the NGPA, all first sales of natural gas, which include virtually all producer sales, are subject to the maximum lawful pricing scheme established in Title I of the Act. The NGPA's ceiling prices are stated, not within broad ranges, but either in precise dollars-and-cents terms "per MMBtu," or by reference to pre-existing rates, also expressed on a "per MMBtu" basis.[11] The plain language of the NGPA thus reflects Congress's clear intent to establish a system of exact ceiling prices, based on heating value (or Btu content), with respect to all gas delivered in first sales. Accordingly, the Commission reasonably concluded that proper implementation of the NGPA's pricing scheme requires an accurate determination of the Btu content of such gas. Because the "wet" method overstates the amount of water vapor in a given gas stream and there-

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[11] As this Court recently observed, under the NGPA's incentive pricing scheme, the Commission is authorized to raise the ceiling price in certain circumstances, but is "given [no] authority to require a rate lower than the statutory ceiling." *Mid-Louisiana*, slip op. 13.

by understates the heating value of the gas, the Commission's rule provides that Btu content must be determined on an "as delivered" basis. This rule, which permits the collection of ceiling prices for each MMBtu actually delivered, is wholly consistent with the intent of Congress in enacting the NGPA.[12]

It is well settled that courts are required to accord "great deference" to the interpretation given a statute by the agency charged with its administration. *Udall* v. *Tallman*, 380 U.S. 1, 16 (1965). As the court recently reiterated, this respect is particularly due where, as here, a court is called upon to review an agency rule that represents

> "a contemporaneous construction of a statute by the men charged with the responsibility of setting its machinery in motion, of making the parts work efficiently and smoothly while they are yet untried

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[12] That the Commission's rule accords with the intent of Congress is aptly demonstrated by the following example. Assume that the NGPA maximum lawful price for a category of natural gas is $3.00 per MMBtu and a sale is made of 100 MMBtu's. The clear intent of the statute is to permit the seller to receive up to $3.00 for each MMBtu actually sold. The seller, under the Commission's "as delivered" method, can receive up to $3.00 for each MMBtu sold, or in this example $300.

By contrast, the "wet" method assumes that 1.74% of a given stream of natural gas is comprised of water vapor at the time of delivery (containing 820 pounds of water per one million cubic feet) when, in the typical case the gas is almost "dry" (containing 7 pounds of water per one million cubic feet). Thus, depending upon how one characterizes the court's decision, the seller in the above example would either (a) fictionally deliver only 98.26 MMBtu's at $3.00 each; (b) deliver 100 MMBtu's but sell only 98.26 MMBtu's at $3.00 each with the remaining 1.74 MMBtu's included as a free bonus; or (c) deliver and sell 100 MMBtu's at a lower maximum lawful price of $2.9478 per MMBtu (98.26 MMBtu's × $3.00). However characterized, this result runs directly contrary to the central goal of the wellhead pricing provisions of the NGPA: that a seller may receive up to a precisely set maximum lawful price for each MMBtu it sells.

> and new." *Udall* v. *Tallman*, 380 U.S. 1, 16 (1965), quoting *Power Reactor Development Co.* v. *International Union of Electrical, Radio & Machine Workers*, 367 U.S. 396, 408 (1961). To uphold it, "we need not find that [FERC's] construction is the only reasonable one, or even that it is the result we would have reached had the question arisen in the first instance in judicial proceedings." *Unemployment Compensation Comm'n* v. *Aragon*, 329 U.S. 143, 153 (1946). See *Mourning* v. *Family Publications Service*, 411 U.S. 356, 371-372 (1973). We need only conclude that it is *a* reasonable interpretation of the relevant provisions.

*American Paper Institute, Inc.* v. *American Electric Power Service Corp.*, No. 82-34 (May 16, 1983), slip op. 19-20 (emphasis in original). See *FEC* v. *Democratic Senatorial Campaign Committee*, 454 U.S. 27, 39 (1981). Although the court of appeals paid lip service to these established principles (App., *infra*, 18a-19a), it erred by failing to accord the proper degree of deference to the Commission's interpretation of the NGPA, which, as we have shown, is reasonable and fully consistent with the statutory purpose.

Moreover, the court of appeals' own interpretation, which attributes to Congress the intent to codify a Btu measurement technique that significantly understates the Btu content of natural gas, is itself unreasonable. Despite the court's determination that Congress neither expressly nor by silence made "a conscious policy preference for either the 'wet' or the 'dry' rule" (App., *infra*, 20a), it nonetheless concluded that Congress's choice of the "wet" method was "implicit" in the NGPA. Even apart from the inherent illogic of this conclusion, the reasons submitted to support it do not withstand analysis.

According to the court of appeals, the "wet" technique was the only method of determining Btu content "with which Congress was likely to have been familiar"

(App., *infra*, 24a). This is pure surmise. But, in any event, the question here is not whether Congress is likely to have been familiar with one or another method of measuring Btu content; even if Congress was familiar only with the "wet" method, it does not follow that Congress meant to codify that technique in the statute.

The legislative history cited by the court of appeals provides no support for its conclusion. The court relied heavily or language in a House Report on a bill (H.R. 8444, 95th Cong., 1st Sess. (1977)) that concededly was different in many respects from the NGPA as ultimately enacted (App., *infra*, 24a). Section 405 of the bill would have established a maximum lawful price for any first sale of old natural gas produced in the United States and sold under an existing contract. For sales of gas subject to the Commission's NGA jurisdiction, the maximum lawful price would have been the applicable contract price on April 20, 1977 that had been determined by the Commission to be just and reasonable, multiplied by an inflation adjustment. See H.R. Rep. 95-496 (Pt. 4), 95th Cong., 1st Sess. 104 (1977). For nonjurisdictional (*i.e.*, intrastate) sales, the ceiling price would have been "the contract price, including any contractually authorized quality adjustments, applicable on April 20, 1977, multiplied by the inflation adjustment." *Ibid.*

In the sentence cited by the court, the Committee explained (H.R. Rep. 95-496, *supra*, at 103):

> The reference to FPC-determined just and reasonable prices and contract prices for purposes of determining maximum lawful prices under section 405 incorporates Btu adjustments and other quality adjustments provided for in FPC rate determinations or in the applicable contract.

Although the reference to Btu adjustments in "FPC rate determinations" might constitute a tangential acknowledgement of the "wet" method, the reference to quality adjustments in the "applicable contract" might just as likely constitute a tangential acknowledgement

of the "as delivered" method of determining Btu content, since many intrastate contracts provided for adjustment on the basis of Btu's actually delivered. Certainly, nothing in the above language reflects "implicit" adoption of the "wet" method for NGPA pricing purposes.

The only other portion of the legislative history relied on by the court to support its theory of "implicit" codification of the "wet" rule is the Conference Report's discussion of NGPA Sections 104, 106(a), and 109 (15 U.S.C. 3314, 3316(a), and 3319), which refers to "'the just and reasonable rates that were in effect on April 20, 1977, *as converted, if necessary, to a million Btu basis*'" (App., *infra*, 24a, quoting H.R. Conf. Rep. 95-1752, 95th Cong., 2d Sess. 82 (1978) (court's emphasis)). According to the court, the above-quoted language means that it would be unnecessary to convert any NGA prices that had already been expressed (through "wet" Btu adjustments) on a "per million Btu" basis under the method of determination in force under the NGA (App., *infra*, 24a-25a). This analysis fails on several grounds.

To begin with, the court overlooked the fact that, prior to the NGPA, the Commission consistently had expressed the applicable NGA rates on a "per Mcf" basis, with allowance for a Btu adjustment, not on a "per MMBtu" basis. Moreover, although the court held that the NGPA's "implicit" codification of the "wet" method was applicable to all of the wellhead pricing provisions of the NGPA, the court failed to explain how the above-quoted language supports this codification with regard to those pricing provisions that make no reference to NGA just and reasonable rates. See, *e.g.*, Sections 102, 105 and 108 of the NGPA, 15 U.S.C. 3312, 3315 and 3318. More importantly, the Conference Report makes it clear that it is for the Commission, the agency charged with administering the statute, to determine when conversion to a million Btu basis is necessary. Thus, the quoted phrase is more reasonably read—as

the Commission read it in this case (App., *infra*, 59a-60a)—as an enlargement, not a restriction on its authority.

The court of appeals also sought to support its interpretation by asserting that the Commission "overstat[ed] the significance of Congress' shift to the MMBtu basis of pricing * * *" (App., *infra*, 25a). In the court's view, "there is considerable evidence that Congress may have assumed the 'Mcf' and 'MMBtu' commodity units to be, in many respects, equivalent" (*ibid.*).[13]

This analysis is also flawed. If Congress had intended "Btu" and "Mcf" to be interchangeable, there would have been no reason to refer to Btu's at all, or to distinguish between the two units. On the contrary, however, the two terms have different meanings and are separately defined in the NGPA. See 15 U.S.C. 3301(29) and (30).[14] More importantly for present purposes, "MMBtu" and "Mcf" are both used precisely throughout the NGPA to designate distinct concepts; the former term is used exclusively when the statute deals with pricing and the latter term is used when the statute deals with volumetric measurement. For example, in Section 108(a) of the NGPA, 15 U.S.C. 3318(a),

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[13] The court of appeals' belief that Congress may have considered "Mcf" and "MMBtu" to be equivalent is inconsistent with the court's surmise that Congress may have been familiar with the "wet" method. Certainly, if Congress had been familiar with the "wet" method, it would have known that "Mcf" and "MMBtu" were not equivalent.

[14] As already noted, "Btu" refers to heating value. On the other hand, "Mcf" means 1,000 cubic feet of natural gas measured at a pressure of 14.73 pounds per square inch absolute and a temperature of 60 degrees Fahrenheit. 15 U.S.C. 3301(29). The two terms are quite different. "Mcf" is utilized to express the volume of natural gas without regard to its chemical composition and heating value. On the other hand, heating value, which is expressed in Btu's, is determined by the chemical composition of the gas and reflects its economic value.

the maximum lawful price for stripper well gas is expressed as $2.09 per million Btu's as of May 1978; however, in defining stripper well gas, Section 108(b), 15 U.S.C. 3318(b), expresses the volumetric cut-off as 60 Mcf per day during a particular production period. This distinction demonstrates, not that Congress considered Mcf's and MMBtu's to be equivalent for pricing purposes, but rather, that Congress in the NGPA made a painstaking effort to assure that the heat content of gas would be the controlling factor in determining price.

The principal defect underlying the court of appeals' analysis is its failure to recognize that the purpose of the Btu adjustments, permitted by the Commission in the exercise of its discretion under the NGA, was not to correlate price precisely with the heating value of the gas. Instead, the purpose was to maximize the Btu content of gas flowing in interstate commerce in a manner that would be least disruptive of existing industry practice. It was not essential for this purpose that the method adopted for measuring Btu content exactly reflect the amount of Btu's actually delivered; the adjustment mechanism was satisfactory so long as it offered producers some incentive to maximize the Btu content of interstate gas. See *Texaco, Inc.*, 33 F.P.C. at 1235. As the Commission concluded in the orders under review, the inaccurate "wet" method is not adequate to the very different task of ascertaining the precise Btu content of gas for NGPA pricing purposes. There is no reason to believe that Congress thought otherwise.

In addition, the court of appeals ignored the fact that the Commission's method of regulating interstate producer sales under the National Gas Act had no application at all to intrastate sales, which came under Commission regulation for the first time with the enactment of the NGPA.[15] Thus, to the extent that many intra-

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[15] At the present time, there are in excess of 100 intrastate natural gas pipelines in the United States. Between 1978 and 1982, these pipelines accounted for approximately 40% of the natural gas produced and sold in this country. DOE/EIA, *U.S.*

state sales were made, and are now made, on the basis of Btu content as measured under actual delivery conditions, the court's ruling that the "wet" method is "implicit" in the NGPA could require intrastate producers to change their traditional mode of determining Btu content. As a consequence, any intrastate producer selling gas at the maximum lawful price under the accurate "as delivered" method of measurement would be forced to adopt the inaccurate "wet" method and thus effectively receive less than the maximum price even if that price were prescribed by contract. Congress clearly did not contemplate such a result. See pages 14-15, *supra*.

3. Finally, the court of appeals seriously erred in concluding that Congress meant to preclude the Commission from adopting an accurate, "as delivered" rule for determining Btu content. Even assuming that the "as delivered" rule was not mandated by the NGPA, we submit that, at the very least, Congress left the matter to the ultimate discretion of the Commission.

This conclusion is consistent with the language and legislative history of the NGPA.[16] As noted, Congress defined "Btu" simply as a "British thermal unit," without expressly delineating the appropriate methodology for determining Btu content. Congress, however, also delegated to the Commission broad rulemaking authority in administering the NGPA and specifically authorized the Commission to define technical terms used in the Act. 15 U.S.C. 3411(a) and (b). Moreover, the conferees explained that, in exercising the latter authority, the Commission may "refine definitions of terms provided in the Act in a manner that is consistent with the

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*Crude Oil, Natural Gas, and Natural Gas Liquid Reserves, 1982 Annual Report*, EIA Form 23, at 5 (Aug. 1983); DOE/EIA, *Gas Suppliers of Interstate Natural Gas Pipeline Companies, 1982*, FERC Form 15, at 10 (Oct. 1983).

[16] The conclusion is also consistent with the views expressed by the Commission in support of its issuance of the "Btu Rule" (see App., *infra*, 59a-60a).

definitions provided." H.R. Conf. Rep. 95-1752, *supra*, at 69.

Given this background, the conclusion is inescapable that, to the extent that Congress did not affirmatively require Btu's to be measured "as delivered," Congress structured the NGPA in such a manner as to achieve its primary goal—establishing incentive ceiling prices per MMBtu—while leaving to the Commission the responsibility for filling in the technical details necessary to implement that pricing scheme. See *American Trucking Associations, Inc.* v. *United States*, 344 U.S. 298, 309-310 (1953). Absent a finding that the Commission's action in issuing the Btu Rule was arbitrary, capricious, or an abuse of discretion—a finding that the court of appeals did not even attempt to make—the court was without authority to overturn the Commission's rule. See *American Paper Institute, Inc.* v. *American Electric Power Service Corp.*, slip op. 10; *Citizens to Preserve Overton Park* v. *Volpe*, 401 U.S. 402, 416 (1971).

## CONCLUSION

The petition for a writ of certiorari should be granted.

Respectfully submitted.

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JANUARY 1984

## APPENDIX A

## UNITED STATES COURT OF APPEALS FOR THE DISTRICT OF COLUMBIA CIRCUIT

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No. 81-1690

INTERSTATE NATURAL GAS ASSOCIATION OF AMERICA, PETITIONER

*v.*

FEDERAL ENERGY REGULATORY COMMISSION, RESPONDENT

MOBIL OIL CORPORATION, ET AL.,
GENERAL AMERICAN OIL COMPANY OF TEXAS,
PHILLIPS PETROLEUM COMPANY,
PENNZOIL COMPANY,
MISSISSIPPI RIVER TRANSMISSION CORP.,
SHELL OIL COMPANY,
EXXON CORPORATION,
LACLEDE GAS COMPANY,
GETTY OIL COMPANY,
LOUISIANA LAND & EXPLORATION COMPANY,
ASSOCIATED GAS DISTRIBUTORS,
NORTHERN NATURAL GAS COMPANY,
TEXAS GAS TRANSMISSION CORPORATION,
TEXACO, INC.
TENNECO OIL COMPANY,
HOUSTON OIL AND MINERALS CORPORATION,
GULF OIL CORPORATION,
PLACID OIL COMPANY,
AMINOIL, USA, INC., ET AL., INTERVENORS

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No. 81-1680

MICHIGAN WISCONSIN PIPELINE COMPANY, PETITIONER

*v.*

FEDERAL ENERGY REGULATORY COMMISSION, RESPONDENT

MOBIL OIL CORPORATION, ET AL.,
AMOCO PRODUCTION COMPANY,
GENERAL AMERICAN OIL COMPANY OF TEXAS,
PHILLIPS PETROLEUM COMPANY,
PENNZOIL COMPANY,
EXXON CORPORATION,
SHELL OIL COMPANY,
TENNECO OIL COMPANY,
UNION OIL COMPANY OF CALIFORNIA,
LOUISIANA LAND & EXPLORATION COMPANY,
GETTY OIL COMPANY,
ASSOCIATED GAS DISTRIBUTORS,
LACLEDE GAS COMPANY,
SUN OIL COMPANY,
ARCO OIL & GAS COMPANY,
PLACID OIL COMPANY,
TEXACO, INC.,
GULF OIL CORPORATION, INTERVENORS

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No. 81-1691

TRANSCONTINENTAL GAS PIPE LINE CORPORATION,
PETITIONER

*v.*

FEDERAL ENERGY REGULATORY COMMISSION,
RESPONDENT

MOBIL OIL CORPORATION,
GENERAL AMERICAN OIL COMPANY OF TEXAS,
PHILLIPS PETROLEUM COMPANY,
PENNZOIL COMPANY,
SHELL OIL COMPANY,
ASSOCIATED GAS DISTRIBUTORS,
GETTY OIL COMPANY,
LOUISIANA LAND & EXPLORATION COMPANY,
TEXACO, INC.,
EXXON CORPORATION,
SUN OIL COMPANY,
TENNECO OIL COMPANY,
HOUSTON OIL AND MINERALS CORPORATION,
GULF OIL CORPORATION,

PLACID OIL COMPANY, INTERVENORS

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No. 81-1692

NATURAL GAS PIPELINE COMPANY OF AMERICA, PETITIONER

*v.*

FEDERAL ENERGY REGULATORY COMMISSION, RESPONDENT

MOBIL OIL CORPORATION, ET AL.,
GENERAL AMERICAN OIL COMPANY OF TEXAS,
PHILLIPS PETROLEUM COMPANY,
PENNZOIL COMPANY,
SHELL OIL COMPANY,
LACLEDE GAS COMPANY,
ASSOCIATED GAS DISTRIBUTORS,
GETTY OIL COMPANY,
LOUISIANA LAND & EXPLORATION COMPANY,
TEXACO, INC.,
SUN OIL COMPANY,
CHEVRON, USA,
EXXON CORPORATION,
TENNECO OIL COMPANY,
HOUSTON OIL AND MINERALS CORPORATION,
GULF OIL CORPORATION,
PLACID OIL COMPANY, INTERVENORS

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No. 81-1696

LONE STAR GAS COMPANY, PETITIONER

*v.*

FEDERAL ENERGY REGULATORY COMMISSION, RESPONDENT

GENERAL AMERICAN OIL COMPANY OF TEXAS,
PHILLIPS PETROLEUM COMPANY,
PENNZOIL COMPANY,
SHELL OIL COMPANY,
LACLEDE GAS COMPANY,
LOUISIANA LAND & EXPLORATION COMPANY,

GETTY OIL COMPANY,
ASSOCIATED GAS DISTRIBUTORS,
VALERO TRANSMISSION COMPANY,
TEXACO, INC.,
EXXON CORPORATION,
SUN OIL COMPANY,
TENNECO OIL COMPANY,
HOUSTON OIL AND MINERALS CORPORATION,
GULF OIL CORPORATION,
PLACID OIL COMPANY,
PANHANDLE EASTERN PIPE LINE CO., ET AL.,
INTERVENORS

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No. 81-1802

LACLEDE GAS COMPANY, PETITIONER

*v.*

FEDERAL ENERGY REGULATORY COMMISSION,
RESPONDENT

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No. 82-1004

LONE STAR GAS COMPANY, PETITIONER

*v.*

FEDERAL ENERGY REGULATORY COMMISSION,
RESPONDENT

EXXON CORPORATION,
CONOCO INC.,
GENERAL AMERICAN OIL COMPANY OF TEXAS,
PENNZOIL COMPANY,
TENNECO OIL COMPANY,
UNION OIL CO. OF CALIFORNIA,
GETTY OIL COMPANY,
AMINOIL USA, INC.,
GULF OIL CORPORATION,
TEXACO, INC.,
MOBIL OIL CORPORATION, ET AL.,
HOUSTON OIL AND MINERALS CORPORATION,
SHELL OIL COMPANY,

ATLANTIC RICHFIELD COMPANY,
SUN EXPLORATION AND PRODUCTION CO., INTERVENORS

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No. 82-1177

ASSOCIATED GAS DISTRIBUTORS, PETITIONER

*v.*

FEDERAL ENERGY REGULATORY COMMISSION,
RESPONDENT

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Petition for Review of Orders of the
Federal Energy Regulatory Commission

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Argued November 2, 1982

Decided August 9, 1983

Before: ROBINSON, *Chief Judge*, MIKVA and SCALIA, *Circuit Judges*.

Opinion for the Court filed by *Circuit Judge* MIKVA.

MIKVA, *Circuit Judge*: The petitioners in this action, numerous natural gas transmission and distribution companies and their respective trade associations, seek review of a final rule of the Federal Energy Regulatory Commission (FERC or Commission). That rule establishes a new approach to measuring the energy content of natural gas for the wellhead pricing purposes of the Natural Gas Policy Act of 1978 (NGPA), 15 U.S.C. §§ 3311-3333 (Supp. V 1981). Specifically, the new rule requires that the energy content of natural gas be measured under the varying, relatively "dry" conditions at which gas is delivered for sale instead of the uniform, water-vapor saturated, "wet" condition under which the Commission had previously determined the energy content of gas. The petitioners argue that the new rule, by defining energy content in a way unforeseen by Congress, effectively raises the wellhead prices of natural gas above the maximum ceiling prices established by Congress in the NGPA. Alternatively, the pe-

titioners argue that the rule was adopted without adequate notice and comment under the Administrative Procedure Act; was impermissibly given retroactive effect; and failed to guarantee wholesale gas purchasers automatic pass through of any retroactive payments they may be forced to make. We agree that the rule violates the NGPA's statutory pricing scheme and accordingly vacate the Commission's rule.

## I. BACKGROUND

### A. *Technical and Historical Background of the "Wet" Rule*

The energy content of natural gas is measured in terms of British thermal units (Btu's), each Btu representing the amount of energy needed to raise the temperature of one pound of water one degree Fahrenheit, *see Texaco, Inc.*, 33 F.P.C. 1228, 1240 n.5 (1965). The Btu content of any given stream of natural gas will vary, however, depending on the gas' particular mix of combustible and noncombustible constituents. Natural gas is primarily composed of combustible hydrocarbons such as methane, propane, butane, ethane, and natural gasoline. Yet, natural gas contains small amounts of noncombustible substances as well. Of particular importance to the present case is the fact that natural gas often contains relatively small amounts of water vapor. *See* FERC Order 93-A, Technical Appendix, *reprinted in* Joint Appendix (JA) 59, 63, 73. Because water vapor contains no available heat energy, its presence in any given volume of natural gas will reduce the Btu content of the gas by displacing energy-producing hydrocarbons. *Id.* at 61.

Prior to the passage of the NGPA, the Commission (and its predecessor, the Federal Power Commission) measured the Btu content of natural gas for the purpose of making "quality adjustments" to the gas rates set by the Commission under the Natural Gas Act of

1938 (NGA), 15 U.S.C. §§ 717a-717w (1976 & Supp. V 1981). Although the varying amounts of water vapor in natural gas streams could affect the gas streams' relative Btu values, the Commission sought to factor out this relatively small variable—to ensure ease of measurement and consistency among samples—by determining Btu content under laboratory conditions that standardized the amount of water vapor at a convenient, albeit arbitrary, level. *See* Government Brief at 5 n.9 & 8 n.12. Specifically, the Commission promulgated a rule requiring the Btu content of a gas stream to be determined on the basis of a test volume of gas (1.0 cubic foot), saturated with water vapor at a specified, conveniently obtained temperature and pressure (60° F. and 30 inches of mercury). *See* 18 C.F.R. §§ 2.56a(c)(1), 2.56b(d)(1) (1982) (post- and pre-1973 gas, respectively). This rule was known as the "wet" rule because it required the gas sample to be saturated with water vapor at a temperature and pressure combination where the capacity of natural gas to absorb water vapor is markedly higher than that existing at the temperature and pressure conditions under which most natural gas is sold. In practical effect, therefore, the wet rule tended to overstate water vapor content for gas which, when actually delivered, was neither saturated with water vapor nor delivered at the "standard" temperature or pressure. *See* FERC Order 93-A, Technical Appendix, *reprinted in* JA 63. This overstated water vapor content, in turn, caused an understatement in the number of Btu's assumed to be in the test sample of natural gas.

Despite its relative inaccuracy, however, the Commission's "wet" Btu determination enjoyed the advantages of widespread industry acceptance and consistent agency implementation. Originally proposed in a policy statement during the Commission's administration of gas rates under the Natural Gas Act, *see* 26 Fed. Reg.

4, 614 (1961), the wet rule was expressly sanctioned by the Commission in *Texaco, Inc.*, 33 F.P.C. 1228 (1965), in which the Commission noted that the rule was accepted by the American Society for Testing Materials and the natural gas industry as a whole, *id.* at 1236-37. *See also Sunray DX Oil Co.*, 29 F.P.C. 1079 (1963). The wet rule was carried forward into the Commission's area rate proceedings under the NGA, *see Area Rate Proceeding (Southern Louisiana Area)*, 46 F.P.C. 86, 143-44 (1973); *Area Rate Proceeding, Docket No. AR61-1*, 34 F.P.C. 159, 223-24 (1965), and into its national rate proceedings under the NGA as well, *see National Rates for Jurisdictional Sales of Natural Gas*, 56 F.P.C. 2698 (1976); *Just and Reasonable National Rates for Sales of Natural Gas*, 54 F.P.C. 3090 (1975); *Just and Reasonable National Rates for Sales of Natural Gas*, 52 F.P.C. 1604, 1630, 1651-52 (1974). Indeed, in its first national rate proceeding, the Commission specifically rejected an argument by natural gas producers that, because gas generally is sold to pipelines and distribution companies in a much "drier" condition than that defined in the wet rule, the Commission should adopt a more accurate "as delivered" or "dry" definition of Btu content:

> The Producers argue that the heating content (Btu) 'of the gas should be adjusted for the water vapor content in the gas as it is delivered.' In *Texaco, Inc.*, the Commission determined that Btu adjustments should be made on the saturated basis. This is the basis which was utilized in the area rate proceedings, and is the basis that will be adopted in this proceeding.

52 F.P.C. at 1630.

Thus, at the time Congress passed the NGPA in 1978, the Btu content of natural gas had been defined by the Commission in terms of a standardized, saturated condition for over fifteen years. As codified in the Commission's rules of practice, the wet rule provided:

> The Btu content of the natural gas used in computing this rate adjustment [under the NGA] shall be the number of British thermal units (Btu) produced by the combustion, at constant pressure, of the amount of the gas which would occupy a volume of 1.0 cubic foot at a temperature of 60° F. *saturated with water vapor* and under a pressure equivalent to that of 30.00 inches of mercury at 32° F. and under standard gravitational force (980.665 centimeters per second squared) with air of the same temperature of the gas and air and when the water formed by combustion is condensed to the liquid state.

18 C.F.R. §§ 2.56a(c)(1), 2.56b(d)(1) (1982) (emphasis added). The precise language of the wet rule becomes an important reference point for the petitioners' procedural objections to the Commission's post-NGPA change of course.

B. *The Procedural History of the "Dry" Rule*

Title I of the NGPA establishes a detailed scheme of maximum ceiling prices for various categories of natural gas sold to pipelines and local distribution companies. Although these maximum "wellhead," or "first sale," prices vary among different categories, the NGPA expresses the price of each category on a "per million Btu" (per MMBtu) basis. Thus, for example, section 108 of the Act sets a maximum lawful price for "stripper well" gas at $2.09 per MMBtu as of May 1978 (subject to small, monthly adjustments thereafter for inflation and real growth) and section 109 of the Act sets a maximum price for certain gas produced from Prudhoe Bay, Alaska at $1.45 per MMBtu as of April 1977 (as adjusted monthly, thereafter, for inflation). *See* 15 U.S.C. §§ 3318, 3319 (Supp. V 1981). Because the prices for all of the NGPA's categories of gas are expressed per MMBtu, the Commission felt it necessary to specify, in its regulations, how Btu content was to

be determined. In doing so, the Commission abandoned the "wet" measurement of Btu's that it had used under the NGA (and indeed still uses for NGA purposes not displaced by the NGPA). In its place, the Commission adopted an "as delivered" rule that measured the Btu content of gas at the conditions under which natural gas is actually delivered for first sales. Because natural gas generally contains far less water vapor under actual delivery conditions than under the saturated, laboratory conditions specified in the wet rule, we refer to the Commission's new rule as the "dry" rule.

The Commission's transition from the wet to the dry rule was heralded by considerable confusion. The NGPA's pricing scheme became law on November 9, 1978, with an effective date of December 1, 1978. Because of the shortness of time in which to devise implementing regulations, FERC decided to promulgate interim regulations on an expedited basis and to revise them, if needed, at a later date. Accordingly, the Commission issued a notice of proposed rulemaking on November 14, 1978; considered all comments received by November 20; and issued its interim regulations on November 29. *See* Notice of Proposed Rulemaking in Docket No. RM79-3, 43 Fed. Reg. 53,270 (1978). The notice also provided for a subsequent, sixty-day comment period on the interim regulations, to form the basis for any appropriate revisions. *Id.*

Among the proposed regulations considered during this expedited interim rulemaking was the Commission's dry rule, designated as section 270.204 of the proposed interim regulations. As originally proposed, however, the Commission's dry rule appeared virtually identical to its long-established wet rule. Proposed section 270.204 provided:

> *Btu content per unit volume of natural gas*
>
> For purposes of determining the number of Btu's per unit volume of natural gas, the Btu content of

> one cubic foot of natural gas is the number of Btu's produced by the combustion, at constant pressure, of the amount of gas which would occupy a volume of 1.0 cubic foot at a temperature of 60 degrees Fahrenheit, *saturated with water vapor*, and under a pressure equivalent to that of 30.00 inches of mercury at 32 degrees Fahrenheit, and under standard gravitational force (980.665 centimeters per second squared) with air of the same temperature and pressure as the gas, when the products of combustion are cooled to the initial temperature of the gas and air and when the water formed by combustion is condensed to the liquid state.

43 Fed. Reg. at 53,333 (1978) (emphasis added); *compare* 18 C.F.R. § 2.56a(c)(1) (quoted *supra* page 11). Nothing in the prefatory statement accompanying the Commission's proposed regulation gave any indication that section 270.204 constituted a change from the virtually identical text of the Commission's wet rule. The Commission's only explanation of section 270.204 was that it "presents the technical information necessary to determine the number of British thermal units (Btu's) per unit volume of natural gas. This is necessary because maximum lawful prices for first sales of natural gas are stated in terms of dollars per million Btu's." 43 Fed. Reg. at 53,280. No comments were received on the proposed rule during the one-week comment period and, on November 29, 1978, the identical text of the proposed rule was issued as interim regulation 270.204. *See* 43 Fed. Reg. at 56,448.

The subsequent sixty-day comment period on the interim regulation was more lively. During this period, the gas-producing companies which are intervenors in the present case filed written comments objecting to what they perceived to be the water-vapor saturation requirements of interim regulation 270.204:

> Section 270.204—According to this section, the Btu content of natural gas is to be determined "sat-

> urated with water vapor." The result of this "special rule" may be to unlawfully deny producers the right to collect the full statutory rates under the NGPA. By fixing the price on an MMBtu basis, Congress intended that the maximum lawful price should be paid for the gas as delivered by the producer, not as adjusted by regulation.

Joint Supplemental Comments of Indicated Producers, filed Jan. 31, 1978, 6-7, *reprinted in* Brief of Producer Intervenors, Appendix A at A-1 to A-2. On the basis of comments such as these, the producers filed a petition for rehearing concerning the interim regulations with the Commission in February 1979. *See* Application of Indicated Producers for Rehearing, FERC Docket No. RM79-3, filed Feb. 2, 1979. On April 19, 1979, however, the Commission denied this application without comment. *See* Order Granting in Part and Denying in Part Applications for Rehearing of the Interim Regulations, *reprinted in* Brief of Producer Intervenors, Appendix A at A-5 to A-9. Thereafter, the producers filed for judicial review of interim regulation 270.204 in the United States Court of Appeals for the Fifth Circuit. *See Ecee, Inc.* v. *FERC*, 645 F.2d 339 (5th Cir. 1981).

On July 16, 1980, almost eighteen months after promulgating interim section 270.204, FERC issued Order 93, adopting the interim regulation as a final regulation, albeit parsing the final text of the regulation into a slightly different format:

> *Interim regulation § 270.204 is adopted as a final rule*
>
> § 270.204 *Btu content per cubic foot of natural gas*
>
> (a) *Measurement.* The Btu content of one cubic foot of natural gas under the standard conditions specified in paragraph (b) of this section is the number of Btu's produced by the complete combustion of such cubic foot of gas, at constant pressure with air of the same temperature and pressure as the gas, when the products of combustion are cooled

> to the initial temperature of the gas and air and when the water formed by such combustion is condensed to a liquid state.
>
> (b) *Standard conditions.* The standard conditions for purposes of paragraph (a) of this section are as follows: the gas *is saturated with water vapor* at 60 degrees Fahrenheit under a pressure equivalent to that of 30.00 inches of mercury at 32 degrees Fahrenheit, under standard gravitational force (980.665 centimeters per second squared).

FERC Order No. 93, Final Rule, July 16, 1980, *reprinted in* JA 24 (emphasis added). Although the terms of the final rule tracked, almost verbatim, the terms of the interim rule, the Commission surprised all of the parties in this case by announcing in the "Summary" section of Order 93 that the Btu values obtained under section 270.204 were to be "converted" to figures that reflected the actual water vapor condition of natural gas on delivery:

> Several comments noted that § 270.204 provides that Btu content must be measured on a "saturated with water vapor" basis rather than on the basis of the actual water vapor content of the gas as delivered. The comments asserted that under this rule the seller would be paid for less Btu's than would actually be delivered if the gas were sold on a dry (unsaturated) basis.
>
> This assertion is erroneous. Section 270.204 merely describes the test standard for expressing the number of Btu's contained in a cubic foot under certain conditions. Under this standard, the heat value is expressed as the number of Btu's per cubic foot of gas "saturated with water vapor." The Commission is aware that the water vapor content or pressure of the gas when tested may be different than described in this standard, and may also be different than the conditions that obtain when the gas is delivered. Therefore, the results obtained under test conditions, be they those in the

> rule or otherwise, *must be converted to figures that reflect the actual condition of the gas on delivery in order to properly price the gas.*

FERC Order 93, *supra*, at JA 15-16 (emphasis added).

Although Order 93 rendered moot the "wet rule" issue in the producers' petition for review in the Fifth Circuit's *Ecee* case, it set off a flurry of applications for rehearing by most of the pipeline and gas distribution companies which are presently petitioners in this case. The Commission denied all of these applications for rehearing in Order 93-A, April 24, 1981, *reprinted in* JA 30. In Order 93-A, the Commission for the first time articulated the rationale behind Order 93's controversial explanation of section 270.204. Essentially, the Commission's position was that the NGPA's Btu-based pricing scheme returned (1) a more accurate method of measuring Btu's than was required under the old NGA scheme, and (2) a method of measuring Btu's in a volume of gas at "delivery conditions" instead of at "standard conditions." *See* Order 93-A, *supra*, at JA 42-49. To explain why the languge of section 270.204 specified these "standard conditions" in the first place, the Commission cryptically stated:

> [Section 270.204] merely describes the standard conditions under which the number of MMBtu's in a volume of natural gas is measured. However, recognizing that actual delivery conditions vary widely and are most often different from the defined standard conditions ... the results of Btu measurements at the defined standard conditions must be adjusted to account for actual delivery conditions.

Order No. 93-A, *supra*, at JA 32-33. The Commission further stated that its newly explained "as delivered" method of determining Btu content could be made by any reasonable method. JA 55. Moreover, the Commission concluded, because Order 93 had merely "clarified" interim section 207.204, and had not substantively

changed it, the effective date of the final dry rule was December 1, 1978 (the effective date of the interim rule) and not September 22, 1980 (the effective date of Order 93). *See* JA 57. Because the December 1, 1978 effective date could result in retroactive payments in the millions of dollars from pipeline and gas producers, the Commission specifically provided that pipeline and distribution companies could demonstrate that pass through charges to their customers (rate treatment) would be "appropriate" for any claimed retroactive payments. *See* JA 58.

In response, some pipeline and distribution companies petitioned the Commission for rehearing of Order 93-A and requested a stay of its retroactive application. These petitions were denied on July 30, 1981. *See* Order Denying Applications for Rehearing of Order 93-A and Limited Stay of Order Nos. 93 and 93-A, *reprinted in* JA 89. In June and July 1981, the petitioners filed their petitions for judicial review in this court and, on August 6, 1981, one of the petitioners (Lone Star Gas Company) moved this court for a stay of the dry rule's retroactive application pending a judicial determination on the merits. Before this court could rule on the motion, the Commission *sua sponte* asked for a remand of the record to consider the issue of the dry rule's effective date and temporarily stayed the rule's retroactive application pending the Commission's reconsideration. This court allowed remand of the record to the Commission in September 1981, but in December of that same year, the Commission issued an Order reaffirming the dry rule's December 1, 1978 effective date. *See* Order Vacating Partial Stay and Amending Regulations, JA 126. In this Order, however, the Commission amended the language of section 270.204 by adding a new subsection (c):

> (c) *Application of the maximum lawful price.* The maximum lawful price prescribed by the NGPA

> and this part for any first sale of natural gas applies to the Btu's actually delivered in that first sale.

JA 133. Because the Commission considered this amendment to be merely another "clarification" of the regulation, it concluded that public notice and comment were unnecessary. JA 131.

C. *The Parties' Arguments*

The primary arguments in this case address two broad questions: (1) whether the NGPA's pricing scheme allows or requires the Commission to promulgate a dry definition of Btu content; and (2) if so, whether the Commission's promulgation of section 270.204 afforded the petitioners adequate notice and opportunity to comment. The petitioners maintain that the NGPA does not allow the Commission to adopt a dry definition of Btu content. They support this position with excerpts from the act's legislative history suggesting indirect congressional endorsement of the wet rule; supplementally, they point to the absence of congressional criticism of the wet rule as indicating congressional intent to leave the definition of Btu content as it was. In the alternative, the petitioners argue that they were deprived of a meaningful opportunity to comment on the dry rule because the Commission's notice of proposed rulemaking and the "wet" text of interim section 270.204 failed to indicate to the public that a dry rule was even under consideration. Finally, the petitioners complain that the Commission violated their constitutional right to due process by giving retroactive effect to the dry rule—which was announced, at the earliest, in Order 93 on July 16, 1980—as of the NGPA's effective date, December 1, 1978. This retroactive application is compounded, the petitioners add, by FERC's refusal to guarantee pipeline and distribution companies automatic pass through to their customers,

under section 601 of the NGPA, 15 U.S.C. § 3431 (Supp. V 1981), of any retroactive "dry Btu" payments that the companies may now be forced to make to natural gas producers.

In response, the Commission posits that its dry definition of Btu content is consistent with the NGPA's pricing scheme and deserves judicial deference. Specifically, the Commission argues that Congress impliedly displaced the inaccurate wet rule by choosing a Btu-based pricing scheme; such a scheme, the Commission concludes, evidences congressional intent to measure Btu's on a more accurate "dry" or "as delivered" basis. Moreover, because its dry rule merely articulates this implicit legislative intent, the Commission maintains that the rule is an "interperative" rule, outside of the notice and comment requirements of the Administrative Procedure Act (APA), 5 U.S.C. § 553(b)(c) (1976). Concomitantly, the Commission maintains that its interpretative rule should be given the same December 1, 1978 effective date as the statute that it interprets. In the alternative, the Commission suggests that its notice of proposed rulemaking and the text of its interim rule sufficed to notify petitioners adequately that the subject of Btu measurement was under agency review. Assuming that its dry rule was a properly promulgated but non-interpretative rule, the Commission would still justify the rule's application as of December 1, 1978 because the harm of depriving natural gas producers of their congressionally-allowable prices is claimed to be greater than the harm to pipeline and distribution companies, which assertedly can pass through any legitimate, retroactive payments to their customers. The Commission insists that its refusal to "guarantee" pass through is not meant to deprive the pipelines and distribution companies of pass through under section 601. Rather, the Commission's refusal is said merely to allow pass through on a case-by-case basis, to ensure that

all passed through charges are not "excessive due to fraud, abuse or similar grounds," as provided in section 601(c)(2), 15 U.S.C. § 3431(c)(2) (Supp. V 1981).

The intervenors in this case are twenty-three energy-producing companies. The intervenors take the position that the Commission's dry rule is required by the NGPA; that it is an interpretative rule outside of the APA's notice and comment provisions; and, alternatively, that it is a reasonable legislative rule, promulgated with adequate notice and comment. In addition, the intervenors have moved to dismiss one of the petitioners, Lone Star Gas Company (Lone Star), for lack of jurisdiction. Specifically, the intervenors claim that Lone Star's failure to petition the Commission for rehearing of the final day rule within 30 days of the rule's promulgation in Order 93 precludes it from seeking judicial review of that Order given the jurisdictional prerequisite established in section 506 of the NGPA, 15 U.S.C. § 3416(a)(2) (Supp. V 1981) (denying standing to seek judicial review to any person aggrieved by an order of the Commission who failed to petition for agency rehearing within 30 days after issuance).

## II. Discussion

As a threshold matter, we consider the petitioners' contention that the language and legislative history of the NGPA do not allow the Commission to adopt a "dry" definition of Btu content. Should the petitioners prevail in this contention, it would not be necessary to reach the notice and comment, retroactivity, or pass through issues. In evaluating the petitioners' position, and concomitantly the Commission's (and producer-intervenors') contrary view of the statute, it is our responsibility to measure the parties' arguments in light of the language, legislative history, purpose, and structure of the NGPA, according the Commission the tradi-

tional respect due an agency's interpretation of the statute it is called upon to enforce.

We begin our analysis by considering the statute's language; "[t]he starting point in every case involving construction of a statute is the language itself." *International Brotherhood of Teamsters* v. *Daniel*, 439 U.S. 551, 558 (1979). In the present case, however, the dearth of statutory references to water vapor/Btu content calls forth Justice Frankfurter's guidance: "One more caution is relevant when one is admonished to listen attentively to what a statute says. One must also listen attentively to what it does not say." Frankfurter, *Some Reflections on the Reading of Statutes*, 47 COLUM. L. REV. 527, 536 (1947). The NGPA does not expressly provide for either a wet or a dry determination of Btu content. Although ceiling prices for virtually every category of natural gas are set on a "per MMBtu" basis, *see* 15 U.S.C. §§ 3312-3319 (Supp. V 1981), the statute merely defines the term "Btu" to mean "British thermal units," 15 U.S.C. § 3301(30).

Undaunted by the lack of statutory text, some of the parties seek to quarry congressional intent from Congress' silence. The petitioners, for example, argue that Congress, having not spoken to the Btu measurement issue, "cannot be held to have required a change in the long-standing practice of measuring Btu content on a saturated basis." *See, e.g.*, Brief of Petitioners Michigan Wisconsin Pipe Line Company, et al (Michigan Wisconsin Brief) at 24. In response, the producer-intervenors insist, "[h]ad Congress intended to preserve the imprecise water saturation assumption . . . it could easily have done so in [the definitional section] of the NGPA." Brief of Producer Intervenors at 14. These thrusts and parries, however, reflect a duel of wooden maxims that has little discernible relationship to the meaning of the NGPA. However revealing congressional acquiescence in administrative action may be in more

pointed, focused contexts, *see, e.g., Bob Jones University* v. *United States*, 51 U.S.L.W. 4593 (U.S. May 24, 1983), there are no indications in the NGPA's legislative history to suggest that Congress' failure to define expressly Btu content indicates, by itself, a conscious policy preference for either the wet or the dry rule. The wisdom of Justice Frankfurter's admonition to consider what a statute fails to say should not be taken as a cue for sloganeering; generally, the use of canons of construction are appropriate when they aid, rather than displace, the search for statutory meaning. *Cf.* Note, *Intent, Clear Statements, and the Common Law: Statutory Interpretation in the Supreme Court*, 95 HARV. L. REV. 892, 903 (1982) (rules of construction should not blindly substitute for appropriate inquiry into statutory purpose).

Both the Commission and intervenors suggest that the "as delivered" rule is required by the NGPA's repeated reference to "natural gas *delivered* during any month." *See* 15 U.S.C. §§ 3312(a), 3314(a), 3315(a), 3316(a), 3317(a), 3318(a), 3319(a) (Supp. V 1981) (emphasis added). We find this reading to be without foundation. Nothing in the NGPA's language or legislative history links the phrase, "delivered during any month," to a particular type of Btu measurement. Rather, the statute focuses on the month of "delivery," as opposed to the date of the sale or the date of the natural gas contract, to determine the proper month for applying the appropriate ceiling price and accompanying monthly inflation and growth adjustments. *See* 15 U.S.C. § 3311 (b)(4) (Supp. V 1981) ("The maximum lawful ceiling prices under this subchapter ... (B) shall apply to the month of delivery without regard to the date of the sale or the date of the contract under which the sale occurs...."). Thus, for example, section 3312 provides that the maximum lawful price of new gas "*delivered during any month*" shall be:

(1) $1.75 per million Btu's, *in the case of April 1977;* and

(2) *in the case of any month thereafter,* the maximum lawful price, per million Btu's, prescribed under this subsection for the preceding month multiplied by the monthly equivalent of a factor equal to the sum of—

(A) the annual inflation adjustment factor *applicable for such month*; plus

(B)(I) .035, *in the case of any month beginning before April 20, 1981;* or

(ii) .04, *in the case of any month beginning after April 20, 1981.*

15 U.S.C. §3312(a)(b) (Supp. V 1981) (emphasis added). The very particularity with which Congress identifies the price adjustments attending the month of delivery (to the thousandth's place, in some instances) makes it extremely unlikely that Congress would use the phrase, "delivered during any month," without further specification, to denote obliquely a change from the wet to the dry method of measuring Btu's—a change which, we are told, may affect the overall amounts paid for natural gas by the hundreds of millions of dollars. In short, the Commission fails to convince us of any necessary connection between the delivery point at which the price of gas is fixed and a "dry" determination of Btu content. Indeed, the Commission itself has established that a "wet" measurement of Btu content was properly used during rate determinations under the NGA, despite the fact that the underlying NGA commodity unit was also measured on an "as delivered" basis. *See* Order 93-A at 13, *reprinted in* JA 42. ("Although the commodity priced was volume rather than heating value, the NGA, too, priced the commodity on an as-delivered basis."). *See* Order 93-A at 13, *reprinted in* JA 42. ("Although the commodity priced was volume rather than heating value, the NGA, too, priced the commodity on an as-delivered basis.").

The Commission's argument thus boils down to the shift from the commodity unit under NGA ratemaking where gas was priced by volume, per thousand cubic feet (Mcf), to the new energy-content basis under the NGPA, per MMBtu. In the Commission's view, the NGPA's use of a Btu-based pricing scheme puts a premium on accurate Btu measurement that cannot be squared with the water-vapor assumptions of the Commission's longstanding wet rule. This is alleged to be so for two reasons. First, the Commission suggests, "Title I of the NGPA meticulously establishes a detailed pricing scheme for enumerated categories of natural gas," under which Congress could not have intended "to adopt a method of price calculation that leads to inaccurate results." Brief for Respondent FERC at 19, 20. Second, FERC adds, inaccurate measurement of the Btu content of natural gas would distort the intent of the NGPA to set ceiling prices for natural gas in reference to the Btu content of other fuels. *See id.* at 21 n.22. Neither of these two arguments withstands scrutiny.

There is no question but that the pricing scheme of the NGPA reflects the meticulous detail to which the Commission refers. But it is precisely the detail of this scheme that undermines the Commission's position. Originally introduced as the keystone of President Carter's National Energy Act, the NGPA emerged as a complex compromise between two radically different House-and Senate-passed bills. *Compare* H.R. 6831, 95th Cong., 1st Sess., 123 Cong. Rec. 13,184 (1977) (original bill in House) *and* S. 1469, 95th Cong., 1st Sess. 123 Cong. Rec. 13,730 (1977) (original bill in Senate) *with* H.R. 8444, 95th Cong., 1st Sess. (1977) (House-passed bill mandating permanent price controls on intra- and interstate sales) *and* S. 2104, 95th Cong., 1st Sess. (1977) (Senate-passed bill exempting intrastate sales from regulation and deregulating new onshore and offshore gas within two and five years, respectively). *See generally* Note, *Legislative History of*

*the Natural Gas Policy Act: Title I*, 59 TEX. L. REV. 101, 106-16 (1980). The compromise bill combines price control and deregulation in a statutory scheme that creates nationwide incentive-based price ceilings for categories of gas at the margin of supply (such as "new," "high-cost," and "stripper well" gas); that retains various "just and reasonable" rates as the basis for price ceilings on "old" gas; and that imposes interim price controls on intrastate gas. Although the NGPA provides for phased deregulation of many of these categories of gas, Congress established the Act's interim, as well as permanent, price ceilings to the penny. The maximum lawful prices of various categories of gas are congressionally fixed in either specified dollar amounts or else in terms of their "just and reasonable" rates as of a date certain under the NGA. *Compare* 15 U.S.C. §§ 3312, 3313, 3317, 3318 (Supp. V 1981) (setting specific dollar amounts) *with id.* §§ 3314, 3316(a) (incorporating NGA "just and reasonable" rates). *See Public Service Commission of New York* v. *Mid-Louisiana Gas Company* (*Mid-Louisiana Gas*), 51 U.S.L.W. 5030, 5034 (U.S. June 28, 1983) ("Title I ... establishes an exhaustive categorization of natural gas production and sets forth a methodology for calculating an appropriate ceiling price within each category"). Given that both the Commission and the producer-intervenors agree that the Btu content of natural gas is an integral part of each of the prices established in the NGPA, *see* brief for Respondent FERC at 22 ("It cannot be denied ... that the new statute expressly provides that heat content of natural gas determines its price"); Brief of Producer Intervenors at 16 (acknowledging that different methods of measuring Btu's can effectively raise or lower the NGPA's ceiling prices), it is most logical, for several reasons, to assume that Congress fixed these prices based on the "wet" method of measuring Btu's.

First, the wet rule establishes the only method of measuring Btu's with which Congress was likely to have been familiar. At the time Congress passed the NGPA, the Btu content of natural gas had been defined by the Commission in terms of a standardized, saturated condition for over fifteen years. *See* discussion *supra* pp. 10-11. Moreover, the wet rule was the only method of measuring Btu's that was even tangentially acknowledged in the NGPA's legislative history. In the House committee report accompanying H.R. 8444, one of the NGPA's forerunner bills, the House Committee on Interstate and Foreign Commerce explained the bill's incorporation of "the just and reasonable price established by the Commission" by stating that "[t]he reference to ... just and reasonable prices and contract prices for purposes of determining maximum lawful prices under section 405 *incorporates Btu adjustments and other quality adjustments provided for in FPC rate determinations* or in the applicable contract." H.R. REP. NO. 496, Part 4, 95th Cong., 1st Sess. 103 (1977) (emphasis added). Although the final version of the NGPA differed in many respects from H.R. 8444, the concept of incorporating the Commission's "just and reasonable" rates for certain categories of gas was carried over into the final version of the Act, *see, e.g.*, 15 U.S.C. §§ 3314, 3316(a) (Supp. V 1981). In explaining this incorporation, the House conference report referred to "the just and reasonable rates that were in effect on April 20, 1977 *as converted, if necessary, to a million Btu basis....*" H.R. REP. NO. 1752, 95th Cong., 2d Sess. 82 (1978), *reprinted in* 1978 U.S. CODE CONG. & AD. NEWS 8983, 8998 (emphasis added). We read the qualifier, "as converted, if necessary, to a million Btu basis," to assume that it would not be necessary to convert those contract prices established under the NGA that may already have been expressed on a "per million Btu" basis. *See, e.g., id.* at 85, *reprinted*

*in* 1978 U.S. CODE CONG. & AD. NEWS 9001 (referring to the NGA as setting the "just and reasonable" price of gas under interstate rollover contracts at *"55¢/MMBtu's* for the second half of 1978.") (emphasis added). Given that such prices would have had to comport with the NGA's longstanding wet rule, the report of the conference committee, like that of the committee report accompanying H.R. 8444, indicates at least indirect congressional incorporation of the wet rule into the NGPA's price structure. In contrast to this evidence of congressional familiarity with the pre-NGPA method of measuring Btu's, there is absolutely no evidence of congressional awareness of any alternative "dry" or "as delivered" methods. Under a statutory scheme in which Congress establishes definite prices for various categories of gas, and in which price adjustments for inflation and real growth are often expressed to the *thousandth's* place (*see supra* p. 23), the Commission's attribution to Congress of a price component with which it was wholly unfamiliar is unreasonable.

We reject the Commission's dry rule for a second reason: it severely overstates the significance of Congress' shift to the MMBtu basis of pricing natural gas and accordingly distorts the ceiling prices that Congress intended to establish. Throughout its Order explaining the statutory rationale for the dry rule, the Commission repeatedly emphasizes that, by choosing the "MMBtu" commodity unit in the NGPA, Congress necessarily rejected the NGBA's use of the "Mcf" commodity unit and all that went with it—including the "wet" method of measuring Btu's for the purpose of making Btu quality adjustments in the price. *See, e.g.*, Order No. 93-A, *supra*, at 32-33, 45-48. Such a sweeping conclusion is belied, however, by the NGPA's legislative history. Specifically, there is considerable evidence that Congress may have assumed the "Mcf" and "MMBtu" commodity units to be, in many respects, equivalent. We

note, for example, that the ceiling price for "new" gas established in section 102 of the NGPA, $1.75 per MMBtu, tracks President Carter's originally submitted bill, which proposed that the price for "new" gas be set at $1.75 per Mcf. *Compare* 15 U.S.C. § 3312 (Supp. V 1981) *with White House Fact Sheet* 16 (April 20, 1977), *reprinted in* I LEGISLATIVE HISTORY OF THE NATIONAL ENERGY ACTS OF 1978, Item 1 at 16 (1979). Similarly, the $0.54 per MMBtu price of interstate rollover gas established in 15 U.S.C. § 3316(a)(2)(A) (Supp. V 1981) appears to track exactly the $0.54 per Mcf price, for the same type and age of gas, derived from *Just and Reasonable National Rates for Sales of Natural Gas*, 52 F.P.C. 1604 (1974). And two of the NGPA's floor managers, Senator Jackson and Representative Dingell, both indicated their belief that the $1.45 per MMBtu price of section 109(b) derived directly from the $1.45 per Mcf price of identical gas established under the Commission's Opinion 770-A, *National Rates for Jurisdictional Sales of Natural Gas*, 56 F.P.C. 2698 (1976). *See* 124 Cong. Rec. H13,117 (daily ed. Oct. 14, 1978) (statement of Representative Dingell); 124 Cong. Rec. S15,020-21 (daily ed. Sept. 13, 1978) (statement of Senator Jackson). From this legislative history, we abstract only the likelihood that Congress may well have assumed that the "Mcf" and "MMBtu" bases of natural gas pricing were far more interchangeable than the Commission realized in its abandonment of the wet rule. Accordingly, we cannot accept the Commission's position that the NGPA's use of an "MMBtu" price represents so drastic a shift that all aspects of "Mcf" prices—such as the wet rule—were necessarily rejected. Such a position derives from assumptions at odds with those used by Congress in establishing the precise ceiling prices at issue in this case. *Cf. Mid-Louisiana Gas*, 51 U.S.L.W. at 5034 n.12 (although NGPA generally meant to displace Commission's regulatory *author-*

*ity* under NGA, "[f]or some (but not all) old gas, the NGA price is preserved as an initial ceiling price"). Moreover, the Commission's position is difficult to reconcile with those sections of the NGPA authorizing the Commission to prescribe higher ceiling prices, in limited circumstances, provided that the new prices are "just and reasonable within the meaning of the National Gas Act." *See, e.g.*, 15 U.S.C. §§ 3314(2), 3316(c), 3319(b) (Supp. V 1981). Given that the wet rule continues to govern the Commission's practice under the NGA, it would appear that only a "wet" method of measuring Btu's would satisfy both the NGPA's authorization to set higher just and reasonable rates "within the meaning of the NGA" and its requirement that all gas be priced on an MMBtu basis.

Our concern with the assumptions underlying the NGPA's pricing scheme provides the basis for a third criticism of the Commission's "dry" interpretation of the Act. Specifically, the Commission argues that Congress chose MMBtu's as its commodity unit in order to reference the price of natural gas to the "Btu equivalency" of other fuels. A "wet" method of measuring Btu's would unjustifiably skew this inter-fuel comparison, the Commission concludes, by distorting the Btu measurement of natural gas with artificial assumptions about water vapor content that do not, in fact, exist. *See* Order No. 93-A, *supra*, JA 45-46. The Commission's conclusion suffers from two major weaknesses. First, the final version of the NGPA failed to carry over the provisions of the House- and Senate-passed predecessor bills which adjusted the wellhead price for natural gas in light of the "current Btu-related price" of domestic crude oil. *Compare* 15 U.S.C. §§ 3311-3333 (Supp. V 1981) (final version of Title I) *with* H.R. 8444, 95th Cong., 1st Sess. § 403 (1977) *and* S. 2104, 95th Cong., 1st Sess. § 303 (1977) ("current Btu-related price" sections of NGPA's unenacted, predecessor bills). Given

that the direct comparison between gas and oil Btu's was dropped from the final version of the statute, the Commission's emphasis on accurate inter-fuel comparisons loses much of its force. Second, moreover, the Commission's emphasis on hyper-accurate measurements finds little support from those inter-fuel Btu comparisons made in other statutory provisions enacted contemporaneously with Title I of the NGPA. Thus, for example, the committee report accompanying the Energy Tax Act of 1978, Pub. L. No. 95-618, 92 Stat. 3174-3205 (1978), refers to several "standard" assumptions made in determining the Btu equivalency of oil and gas for tax purposes: "To arrive at a Btu equivalency price for each million BTU's of natural gas, the price per barrel is divided by 5.8 million. (A thousand cubic feet of natural gas equals about 1 million BTUs)." H.R. REP. NO. 496, Part III, 95th Cong., 1st Sess. 97 (1977). The apparent willingness of Congress to use a standard conversion factor of 5.8 million Btu's per barrel, as well as its generalization that one thousand cubic feet of gas (1 Mcf) contains approximately one million Btu's (1 MMBtu), suggests that Congress was not necessarily adverse to the use of "standard" assumptions underlying the wet rule. Indeed, the Commission itself has endorsed the use of standard assumptions in its implementation of section 204(e) of Title II of the NGPA, 15 U.S.C. § 3344(e) (Supp. V 1981). Section 204(e) requires that the Commission determine the cost of alternative fuel (specifically, of Number 2 fuel oil) on an MMBtu basis. Yet, in its implementing regulations, the Commission adopted a standard conversion factor of 5.8 million Btu's per barrel of Number 2 fuel oil, and specifically *rejected* the suggestions of various commenters that the Commission adopt a specific adjustment factor to accommodate variations in the Btu content among different barrels of oil. *See* 44 Fed. Reg. 57,754, 57,770 (1979). To the extent that Congress' use of Btu's

may be given effect by the use of various "standard" measurements in Title II of the NGPA and in the Energy Tax Act of 1978, there does not seem to be any necessary incompatibility between Congress' shift to MMBTU's in Title I of the NGPA and its use of the "standard" as assumptions underlying the wet rule.

In sum, we find the Commission's dry rule to be inconsistent with the NGPA's language, structure, and legislative history. Although one of the purposes of the Act was to increase the financial incentives for producing various types of new gas, *see* Note, *Legislative History of the Natural Gas Policy Act*, *supra*, p. 25, at 116, Congress did not intend for the Commission to raise the effective wellhead price of gas as much as possible. Rather, Congress itself specified the maximum lawful prices of most categories of gas and authorized the Commission to raise those prices only in certain, very limited, circumstances. *Cf. Pennzoil Co.* v. *FERC*, 645 F.2d 360, 379 (5th Cir. 1981), *cert. denied*, 454 U.S. 1142 (1982) ("The balance Congress struck already took into account the conflicting interests of producers and consumers"). Given that the definition of Btu content is an integral part of the price structure chosen by Congress, *supra*, p. 26, the critical focus in this case involves the likely assumptions made by Congress in pricing natural gas on a "per MMBtu" basis. Thus, however more appealing the dry rule may be to the Commission's sense of scientific aesthetics and accuracy, it is not for the Commission to "improve" the statutory design chosen by Congress. The Commission's technical experience with measuring Btu's is of limited usefulness in determining what Congress meant in setting ceiling prices for natural gas on a Btu basis. Unlike those situations in which Congress delegates to an agency the choice of methodologies or definitions, *see, e.g.*, 29 U.S.C. § 880(b) (Supp. V 1981) (directing the Secretary of Labor "to develop reliable methods . . . to

produce more statistically accurate data on unemployment"), the Commission itself concedes that it was given "no independent authority under the NGPA to define 'Btu,'" Brief for Respondent FERC at 28 n.28. Even according the Commission's rationale for the dry rule the respect traditionally due an agency's statutory interpretation, *see, e.g.*, *FEC* v. *Democratic Senatorial Campaign Comm.*, 454 U.S. 27, 39 (1981); *Batterton* v. *Francis*, 432 U.S. 416, 425 n.9 (1977), we find the Commission's dry rule—whether characterized as legislative or interpretative—to be fundamentally at odds with the Btu measurement technique implicit in the NGPA.

Because we find the dry rule "not in accordance with law," we need not reach the issues of whether the rule had been promulgated with sufficient notice and opportunity to comment; whether the rule had been improperly given retroactive effect; or whether the Commission failed to guarantee pipelines and distribution companies automatic pass through of any retroactive payments. The only issue remaining for disposition in the motion of the intervenors to dismiss one of the petitioners, Lone Star Gas Company, for failing to meet the jurisdictional prerequisites of section 506 of the NGPA, 15 U.S.C. § 3416(a)(2) (Supp. V 1981). Section 506 requires any person seeking judicial review of a Commission order to have petitioned the Commission for rehearing within thirty days of the issuance of the order. *See Ecee, Inc.* v. *FERC*, 611 F.2d 554, 559-66 (5th Cir. 1980) (applying this requirement to persons seeking judicial review of agency rulemaking). It is undisputed that Lone Star did not file for rehearing of the Commission's Order 93, in which the Commission's dry rule was first announced, but did file within thirty days of the Commission's explanatory order, Order 93-A. Although we do not require persons to read vague agency rules with the clairvoyance of "the most tireless of advo-

cates," *Sam Rayburn Dam Electric Co.* v. *FPC*, 515 F.2d 998, 1117 n.35 (D.C. Cir. 1975), the fact that all of the other petitioners in this action found Order 93 sufficiently clear to trigger petitions for agency reconsideration convinces us that the Order was not so ambiguous as to excuse Lone Star from the NGPA's filing provision. Accordingly, we dismiss Lone Star for failing to meet the jurisdictional requirements of the Act. Because all of the arguments advanced by Lone Star before this court are also advanced by several of the other petitioners, however, our dismissal of Lone Star does not affect the issues presented in this case.

For the reasons discussed above, the Commission's measurement of Btu content established in section 270.204 of its rule of practice must be vacated.

*It is so ordered.*

APPENDIX B

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY
COMMISSION

Docket No. RM80-33

Before Commissioners:
Charles B. Curtis, Chairman;
Georgiana Sheldon, Matthew Holden, Jr.,
and George R. Hall.

Final Rules for Part 270, Subpart B,
Sections 270.201, 270.202 and 270.204

Docket No. RM 80-33

ORDER NO. 93
FINAL RULE
(Issued July 16, 1980)

On December 1, 1978, the Federal Energy Regulatory Commission (Commission) issued interim regulations (43 *Fed. Reg.* 56448, December 1, 1978) implementing certain sections of the Natural Gas Policy Act of 1978 (NGPA), 15 U.S.C. 3301-3432, including Subpart B of Part 270 which prescribes special rules relating to first sales of natural gas. On January 18, 1980, the Commission amended the interim rules in Subpart B to include provisions for percentage-of-proceeds sales. (Order No. 68, issued in Docket No. RM80-14, 45 *Fed. Reg.* 5678, January 24, 1980.)

This final rule addresses the following sections of Subpart B of Part 270: § 270.201, which deals with first sales of commingled gas; § 270.202, which prescribes rules for resellers of natural gas; and § 270.204, which describes a standard method of determining the Btu content per unit volume of gas sold under the NGPA. The rule addresses comments concerning the December 1 interim rules as well as requests for clarification of

Order No. 68 as it relates to percentage-of-proceeds sales. The remaining portions of Subpart B (§§ 270.203, 270.205, and 270.206) have been addressed in separate rulemakings and will not be considered here.

## II. SUMMARY OF COMMENTS AND REVISIONS

### A. Section 270.201.

Under the interim regulations, § 270.201 provided that the maximum lawful price for a first sale of natural gas that is sold at a single price but that is comprised of volumes of natural gas subject to different maximum lawful prices shall be the average of the maximum lawful prices weighted according to the respective volumes of gas subject to those different maximum lawful prices. The interim rule, in other words, provided a method for ascertaining a single maximum lawful price for a first sale of commingled gas, components of which were subject to different maximum lawful prices, and implicitly allowed a single contract price to be charged and collected in such a sale.

The Commission received comments which expressed confusion regarding the scope and application of this section. These comments and the Commission's experience under the interim regulations during the past nineteen months have led us to conclude that § 270.201 may both confuse the public and interfere with our program of monitoring for compliance with the maximum lawful prices established by the NGPA. In order to determine whether a single price computed under § 270.201 and charged for a volume of commingled gas exceeded the weighted average maximum lawful price, we would have to know what categories of natural gas were sold and the volumes of gas subject to each pricing category. We would also have to examine the sales contract for the gas. Because the weighted average will change as often as the ratio of volumes produced from each category, we would have to review thousands of

such computations and related sales contracts. Our current procedures generally do not require parties to such first sales to file their contracts or pricing computations.

Requiring producers to file such information and requiring our staff to examine and to analyze it would be unreasonably burdensome. We believe that the problem would be better resolved by requiring that prices for natural gas be computed separately for each category of natural gas subject to a different maximum lawful price rather than on a weighted average basis.[1] This pricing procedure is already followed in the majority of natural gas sales, and we expect this practice to continue. To this end, we are revoking § 270.201. We intend to issue a notice of proposed rulemaking that would require the seller to compute revenues separately for each category of natural gas that is subject to a different maximum lawful price and to maintain records of such computations.[2]

Revocation of § 270.201 will be effective retroactive to December 1, 1978. However, no first seller will be subject to a refund obligation, or enforcement action, for having charged and collected any rate in reliance on that section for deliveries before September 1, 1980.

In view of our decision to delete § 270.201, we will not address those additional comments regarding that section.

**B. Section 270.202.**

Section 270.202(a) contains the general rule regarding the price to be charged in a resale of natural gas. It provides that the maximum lawful price for the resale

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[1] *But see* discussion of reseller rule, *infra*.

[2] We note that this decision accords with our current policy articulated in § 272.105 which requires that deregulated gas be billed separately from regulated gas. See 45 Fed. Reg. 28092 (April 28, 1980).

of gas, all or a portion of which is purchased in a "first sale" (as that term is defined in section 2(21) of the NGPA), and resold in a "first sale," is the higher of two alternative prices: (1) the maximum lawful price that would apply to such sale if it were not a resale, or (2) the maximum lawful price that was applicable to the sale in which the reseller purchased the gas.

Under the first alternative the reseller would price the gas as if he had produced it himself. He could, for example, charge a price based on an existing intrastate contract or any higher incentive price applicable under sections 102, 103, 107 or 108 of the NGPA. (Of course, in the latter case he would have to make or cause to be made the requisite jurisdictional agency filings and interim collection filings).

Under the second alternative the reseller's maximum lawful price would be based on the ceiling price applicable to the person who sold the gas to the reseller.

Section 270.202(a)(2)(ii) of the interim rule deals with a special application of the second alternative: namely, where the volumes sold to the reseller are subject to different maximum lawful prices. In such a case, the interim regulations provided that the reseller's maximum lawful price under this second alternative was equal to the average of maximum lawful prices applicable to the gas sold *to* the reseller, weighted according to the volumes subject to each different maximum lawful price.

We received no comments expressing confusion concerning the use of weighted averages in the context of resales.

However, one comment did suggest that the words "volumes of the purchased gas" in § 270.202(a)(2)(ii) be replaced with the words "quantities of the purchased MMBtu's." We have adopted this suggestion which more accurately describes the Commission's original in-

tention in prescribing the reseller rule.[3] In addition, paragraph (a)(2) has been redrafted to make it clear that the reseller may compute his sales price on the basis of a weighted average or by any other reasonable method.

One additional comment regarding the application of the reseller rule to percentage-of-proceeds sales is discussed in connection with the rule for percentage-of-proceeds sales.

Section 270.202(b) of the interim rule states the manner in which the interim collection rules of Part 273 apply to resellers. Several comments were received on subparagraph (2) of this section, which provides that the reseller is not obligated by Part 273 to make any interim collection filings with the Commission if the person who sold the gas to the reseller has made these filings. The comments pointed out that if one co-owner of a well conducted the sale to the reseller but another co-owner made the filings, the reseller might be obligated by § 270.202(b)(2) to make the filings again. It was suggested that the rule be revised to provide that filings need not be made again if they have already been made by the person who sold the gas to the reseller or by another person on behalf of the person who sold the gas to the reseller. The Commission agrees with this suggestion and has amended § 270.202(b)(2) to achieve this result. In addition, minor editorial changes have been made in § 270.202(b)(1).

Section 270.202(c) provides that a reseller may collect the applicable maximum lawful price on the resale plus any allowances permitted to him by the Commission under the provisions of Subpart K of Part 271.[4] Paragraph

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[3] We note that a similar change would have been made in § 270.201 had we not decided to eliminate that section.

[4] Subpart K implements section 110 of the NGPA, which provides that a first sale price may exceed the maximum lawful price to the extent necessary to recover certain state severance

(c) also provides that if the maximum lawful price received by a reseller is determined under paragraph (a)(2) by reference to the maximum lawful price applicable to the person selling to him, the reseller may add to that maximum lawful price any Subpart K allowances permitted to that person. Some minor editorial changes have been made in § 270.202(c) in order to clarify that section.

Several comments asserted that the provisions of Subpart K work a special hardship on resellers whose gas is subject to section 105 or section 106(b). Under § 271.1105(b)(2), sellers of natural gas which is sold under existing or rollover intrastate contracts cannot receive add-on allowances to recover production-related costs. The comments noted that because of this provision, resellers who have purchased gas under such contracts may be squeezed into buying and reselling at the same maximum lawful price and would thus be prohibited from recovering their operating, gathering, and treating costs, plus a reasonable profit. These comments stated that the adjustment procedures under § 270.202(d) are too cumbersome, too time-consuming, and too uncertain a means of affording adequate relief to these resellers.

The Commission disagrees. It is precisely this type of situation with which section 502(c) of the NGPA, and the Commission's regulations under § 1.41, are intended to deal. Under § 1.41 the Commission has established an expeditious, informal procedure under which the Director of the Office of Pipeline and Producer Regulations may provide relief from any restrictions under Subpart K which may cause special hardship, inequity, or unfair distribution of burdens.

Another comment alleged that the rule discriminates between pipeline purchasers and other resellers with

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taxes and production-related costs borne by the seller and allowed for by Commission rule or order.

regard to all categories of gas because the pipeline purchaser can automatically pass on gathering and other costs it incurs whereas other resellers are required to obtain such approval of such costs under Subpart K.

If a pipeline incurs a production-related cost that is not a component of the first sale price paid for the gas, the prudence of incurring that cost will be subject to scrutiny in a rate case.[5] As to problems regarding Subpart K raised in this and other comments, the Commission believes that it is best to work out a generic solution to such problems in the context of Subpart K. At the time we issue final regulations on Subpart K we will address in detail these and other issues concerning allowances for production-related costs. Any changes which are made in Subpart K at that time will be incorporated by reference into this reseller rule, because § 270.202(c) specifically permits resellers to recover any allowances permitted under Subpart K.

C. Percentage-of-Proceeds Sales.

Order No. 68, which promulgated final rules regarding section 105 and 106(b) of the NGPA, also amended the reseller rule in § 270.202 on an interim basis by adding paragraphs (e)(3) and (h) concerning percentage-of-proceeds sales.[6] Subparagraph (e)(3) defines "percentage-of-proceeds sales"; paragraph (h) describes the treatment of such sales for purpose of Subchapter H. These provisions have been modified slightly and have been included here as final regulations.

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[5] *See* Statement of Policy to be issued in Docket No. RM80-47 (Production related costs).

[6] Prior to promulgation of these amendments, one comment requested that percentage-sellers be able to collect the maximum lawful price applicable to their gas rather than a percentage of the reseller's maximum lawful price as determined under § 270.202. The rule on percentage-of-proceeds makes the Commission's policy in this regard clear.

Two motions were made seeking clarification of Order No. 68.[7] One motion requested clarification regarding percentage-of-proceeds contracts under which the "percentage-sellers"[8] receive a percentage of the weighted average price at which the natural gas is resold. The argument was made that a percentage-seller that produces only one of several streams of gas that feed into a processing plant may receive a price under such an arrangement that exceeds the maximum lawful price that would have been applicable to his stream of natural gas had it been priced and sold separately by the reseller.

Such percentage-of-proceeds arrangements do not contravene our regulations so long as the total price charged by the reseller does not exceed the maximum lawful price applicable to the reseller under paragraphs (a) or (h). Under these circumstances no violation of the NGPA can occur because the percentage-sellers as a group will receive only a percentage of the resale proceeds and the resale proceeds will not exceed the reseller's applicable maximum lawful price. As we stated in Order No. 68:

> Because the percentage-of-proceeds sellers only receive a percentage (less than 100 percent) of the proceeds from the resale, the price of which may not exceed the applicable NGPA maximum lawful price, the total price received by these sellers as a group cannot exceed the maximum lawful price. Distribution of proceeds derived from the resale of

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[7] Application of Phillips Petroleum Co. for Rehearing and Clarification of Order No. 68, and Motion of Getty Oil Co. for Clarification of Order No. 68. Both motions were filed in Docket No. RM80-14. That portion of the Phillips application that requests rehearing of Order No. 68 will be addressed in Docket No. RM80-14.

[8] By a "percentage-seller" we mean the person who sells to the reseller in a percentage-of-proceeds sale.

such gas will be deemed a matter of private contract law to be resolved by the parties.[9]

The second motion for clarification raised a point regarding interim collection filing requirements in the case of a percentage-of-proceeds sale. It was argued that, because percentage-of-proceeds sales are not treated as "first sales" for purposes of Subchapter H, the percentage-seller is excused by § 270.202(h) from making an interim collection filing under § 273.202. The comment asserted that, under such circumstances, a reseller would have to collect on an interim basis and would have to make the filings even though a reseller generally does not have all the data required to make a proper filing under § 273.202(d)(1)(i) and (v).

This special rule for percentage-of-proceeds sales applies only where the reseller's ceiling price is determined under paragraph (a)(1) by reference to the ceiling that would have applied to him if he had not purchased the gas from another seller, and had, instead, produced the gas himself. As noted above, the reseller is obligated under such circumstances to make or cause to be made all requisite jurisdictional agency filings and interim collections filings. If the producer of the gas refuses to make, or to assist him in making, these filings, no incentive prices under sections 102, 103, 107, or 108 of the NGPA may be collected by the reseller and no percentage of that price may be collected by the producer. Both parties should have strong economic incentives to work out the mechanics of making the requisite filings.

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[9] Order No. 68, *mimeo* at 26. In that order, the Commission decided that percentage-of-proceeds sales would not be treated as "first sales" for purposes of administering NGPA pricing rules. This discussion assumes that the reseller, himself, has not received a price in excess of the maximum lawful price applicable to the resale by virtue of § 270.202.

In order to clarify the application of the percentage-of-proceeds rule, several modifications have been made. The rule has been modified to permit the reseller in a percentage-of-proceeds sale to price the gas he sells by reference to the ceiling which would have applied had he produced the gas himself. If he determines his ceiling price in this manner, the percentage-of-proceeds rule applies.

The rule has also been modified to make it clear that percentage sellers otherwise excepted from Subchapter H are nevertheless required to file annual reports under Part 276. The Commission did not intend to exempt percentage-sellers from this requirement under the interim rule and has, in fact, implemented special requirements in Part 276 to deal with percentage-of-proceeds sales.

Comments regarding application of the Btu rule in § 270.204 to percentage-of-proceeds sales are discussed in connection with the Btu rule.

Sections 270.202(f) and (g) establish rules for resellers regarding record retention. They provide that resellers are required to make reports of first sales under Part 276 in the same manner as other first sellers. Minor editorial changes have been made in these paragraphs.

D. Section 270.204.

Section 270.204 describes a standard method for determining Btu content per unit volume of natural gas. Btu content must be measured for much of the gas sold under the NGPA because the Act requires that first sales not exceed certain maximum lawful prices, which are stated in terms of MM Btu's.[10] Furthermore, any

[10] Maximum lawful prices for "minimum rate gas," *see* § 271.101(a), and maximum lawful prices for certain sales under sections 105 and 106(b) are expressed on an Mcf, and not an MMBtu, basis. *See* note 6 *infra*.

seller whose gas is subject to section 105 may need to know the Btu content of the gas in order to determine whether he is subject to the maximum lawful price in section 105(b)(1) or that in section 105(b)(2).[11]

One comment on this section asked at what site Btu content should be measured for purposes of billing. If a well produces from several completion locations and the various streams are subject to different maximum lawful prices, Btu content should be determined for each stream subject to a different maximum lawful price. The Commission will accept any method for Btu measurement that is reasonably designed to determine the Btu content of each such stream.

One comment asked whether Btu content tests are required when gas is sold pursuant to "casinghead gas contracts which are of the percentage type." The comment argued that the exigencies of such arrangements make it impractical to perform Btu content tests on a

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[11] For example, where gas is subject to section 105 (existing intrastate contracts), it will be necessary to know the Btu content in some but not all cases. Initially, a Btu content test may be necessary in order to determine whether the sale is subject to section 105(b)(1) or section 105(b)(2). If the price under the terms of the existing contract is calculated on a volumetric basis (per Mcf) and is clearly lower than the maximum lawful price per MMBtu under section 102 on November 9, 1978, the price per Mcf under the terms of the existing contract is the maximum lawful price. There is no need to measure the heat (Btu) content of the gas. However, if the price under the existing contract appears to be close to the section 102 maximum lawful price, it becomes necessary to ascertain the Btu content of the gas in order to determine whether or not the contract price exceeds the new gas ceiling price determined as of the date of enactment. For similar reasons, a Btu content test may be necessary for sales subject to section 105(b)(1) if and when the contract price escalates under the contract terms to an amount close to the section 102 maximum lawful price. (Of course, the heat content of the gas must be measured if the sale is subject to section 105(b)(2)). *See* section 105(b).

well-by-well basis, *i.e.*, prior to commingling in a central separator serving a number of wells. As noted above, the Commission will accept any measurement method reasonably designed to ascertain Btu content. In this case, the reseller may use any estimation method reasonably designed to measure Btu content if it is impractical to measure Btu content prior to commingling.

Several comments noted that § 270.204 provides that Btu content must be measured on a "saturated with water vapor" basis rather than on the basis of the actual water vapor content of the gas as delivered. The comments asserted that under this rule the seller would be paid for less Btu's than would actually be delivered if the gas were sold on a dry (unsaturated) basis.

This assertion is erroneous. Section 270.204 merely describes the test standard for expressing the number of Btu's contained in a cubic foot of gas under certain conditions. Under this standard, the heat value is expressed as the number of Btu's per cubic foot of gas "saturated with water vapor." The Commission is aware that the water vapor content or pressure of the gas when tested may be different than described in this standard, and may also be different than the conditions that obtain when the gas is delivered. Therefore, the results obtained under test conditions, be they those in the rule or others, must be converted to figures that reflect the actual condition of the gas on delivery in order to properly price the gas.

A few commenters asked what is the correct pressure base for measuring Btu content per unit volume of natural gas.

Section 270.204 uses a standard pressure base of 30 inches of mercury at 32 degrees Fahrenheit to determine what constitutes a cubic foot of gas and to determine how many Btu's are in that cubic foot of gas. These comments noted correctly that the pressure base

of 30 inches of mercury at 32 degrees Fahrenheit for expressing Btu content per unit volume of natural gas does not convert precisely to 14.73 pounds per square inch (p.s.i.), the pressure base used in section 2(29) of the NGPA to define a standard Mcf (1,000 cubic feet) of natural gas. We note that measurement of the Btu content of natural gas can be made at any desired pressure base, provided that the measurement is accurate and provided that the measurements for Btu content and for volume are converted to a common pressure base.[12]

Another comment asked that the Commission provide a list of the acceptable methods of measuring Btu content, *e.g.*, chromatograph, calorimeter, etc. The Commission believes at this time that the method of measurement may best be determined by the parties to the sales contract. We will accept any reasonable method for determining Btu content upon which the parties agree. We note, however, that contractual obligations should be observed and that appropriate conversion factors should be applied in order to modify test results to actual delivery conditions of the gas.

### III. PUBLIC PROCEDURES AND EFFECTIVE DATE

The regulations in Subpart B of Part 270 (except for those interim rules promulgated in Order No. 68) were originally proposed for comment in November of 1978 in Docket No. RM79-3 and issued as interim regulations on December 1, 1978 (43 *Fed. Reg.* 56448, December 1, 1978). For 60 days thereafter comments were received, and during that period hearings were held on these regulations. By this process the Commission complied with 5 U.S.C. § 553 and with section 502(b) of the NGPA,

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[12] The comments stated that traditionally intrastate pipelines use a pressure base of 14.735 p.s.i., while interstate pipelines use a pressure base of 14.73 p.s.i. As stated above, either pressure base may be used as long as the correct number of Btu's sold is known.

which requires that, "[t]o the maximum extent practicable," an opportunity for the oral presentation of data, views and arguments be afforded for certain regulations under the NGPA. The amendments contained in this order rest upon consideration given to the information received during the above-described notice, comment, and hearing process. The Commission finds that further notice and public procedure with respect to §§ 270.201, 270.202 and 270.204 is unnecessary.

Paragraphs (e)(3) and (h) of the interim rules were originally issued in Docket No. RM80-14 (Order No. 68) as amendments to the interim rules in Part 270. The clarifications to those paragraphs, which are being issued here as final rules, respond to petitions for clarification of those paragraphs filed in Docket No. RM80-14.

Section §§ 270.202 and 270.204 are being issued as final regulations, effective (30 days from date of issuance). Section 270.201 is revoked retroactive to December 1, 1978. However, no first seller will be subject to a refund obligation, or enforcement action, for having charged and collected any rate in reliance on that section for deliveries which occurred before September 1, 1980.

(Natural Gas Policy Act of 1978, 15 U.S.C. §§ 3301-3432; Natural Gas Act, as amended, 15 U.S.C. 717, *et seq.*, Department of Energy Organization Act, 42 U.S.C. §§ 7107-73522; E. O. 12009, 42 *Fed. Reg.* 46267.)

In consideration of the foregoing, §§ 270.201, 270.202, and 270.204 of Part 270, Subchapter H, Chapter I, Title 18, Code of Federal Regulations, issued as interim regulations (43 *Fed. Reg.* 56448, December 1, 1978 and 45 *Fed. Reg.* 5678, January 24, 1980) are promulgated as final regulations and are amended as set forth below, effective as set forth above.

By the Commission.
(S E A L)

/s/ _____
KENNETH F. PLUMB,
*Secretary.*

1. Interim regulation § 270.201 is revoked by deleting the title and the text in its entirety and inserting in lieu thereof "[Reserved]" so that § 270.201 reads as follows: § 270.201 [Reserved]

2. Interim regulation § 270.202 is revised to read as follows and is adopted as a final regulation.

§ 270.202 *Resales.*

(a) *General rule.* In the case of any first sale of natural gas which is a resale of such gas, the maximum lawful price shall be the higher of:

(1) the maximum lawful price which would be applicable to such sale if it were not a resale; or

(2) the maximum lawful price applicable to the natural gas sold to the reseller. In the case of natural gas which when sold to the reseller was subject to more than one maximum lawful price, the reseller may determine the maximum lawful price for purposes of this subparagraph on the basis of the average of the maximum lawful prices applicable to the natural gas sold to the reseller (weighted according to the number of purchased Btu's that are subject to each different maximum lawful price).

(b) *Special rule for interim collections.*

(1) If the price for a first sale to a reseller is charged and collected under the authority of Part 273 (relating to interim collection), then:

(i) the price authorized to be collected under part 273 shall be treated as a maximum lawful price for purposes of paragraph (a)(2) of this section; and

(ii) the price charged and collected by the reseller shall be subject to the same refund conditions under Part 273 as are imposed on the person who sold the natural gas to the reseller.

(2) The reseller is not obligated by Part 273 to make any filings with the Commission if such filings have been made by:

(i) the person who sold the natural gas to the reseller; or

(ii) a person designated under § 273.103(b) by the person in clause (i) of this subparagraph to make such filings.

(c) *Allowances.*

(1) A resale of natural gas shall not be considered to exceed any maximum lawful price established in paragraph (a) of this section if it exceeds such price to the extent necessary to recover state severance taxes or production-related costs which are borne by the reseller and if such recovery by the reseller is allowed under Subpart K of Part 271.

(2) If a price for a first sale to a reseller of natural gas is not considered to exceed the applicable maximum lawful price applicable to such sale by reason of an amount allowed under Subpart K, then for purposes of applying paragraph (a)(2) of this section the maximum lawful price applicable to the natural gas sold to the reseller shall be considered to be increased by the amount so allowed.

(d) *Adjustments.* Pursuant to section 502(c) of the NGPA and § 1.41 of this chapter, a reseller may apply to the Commission for an adjustment of the maximum lawful price in paragraph (a) of this section on the grounds that such price results in special hardship, inequity or an unfair distribution of burdens.

(e) *Definitions.* For purposes of this section:

(1) "Resale" of natural gas means the sale of natural gas, all or a portion of which was both purchased and resold in transactions that are first sales as defined in the NGPA.

(2) A "reseller" means the seller in a resale of such natural gas.

(3) "Percentage-of-proceeds sale" means a sale of natural gas the price for which is computed as a percent-

age of the proceeds from the resale of natural gas attributable to such sale.

(f) *Record retention.* In addition to any records required to be retained by reason of an election made by the reseller under § 276.101(b), such reseller shall maintain such records as are sufficient to demonstrate that prices charged for the resale of natural gas do not exceed the maximum lawful prices prescribed in this section. Such records shall include:

(1) a record of each resale of natural gas by the reseller, including the identity of the purchaser and the volume and price of such sale;

(2) a record of each sale of natural gas to the reseller which has been sold in a resale by such reseller, including the volume and price of such sale;

(3) a copy of the contracts covering the purchase and resale of natural gas; and

(4) a record of the method by which the reseller computes the maximum lawful price applicable to each resale and the documents relied on to make such computations.

(g) *Period for keeping records.* Each reseller required to maintain records under this section shall maintain and preserve contracts for any sale to which this section applies for at least three years after the expiration date of such contracts and such other records for at least three years after the date of the relevant transaction or event.

(h) *Special rules for percentage-of-proceeds sales.* In the case of natural gas purchased by a reseller in a percentage-of-proceeds sale, the reseller may determine the maximum lawful price for the resale under paragraph (a)(1) of this section. If the reseller so determines his maximum lawful price, any sale to such reseller in such percentage of proceeds sale shall not be treated as a first sale for purposes of this subchapter (other than Part 276).

3. Interim regulation § 270.204 is adopted as a final regulation.

§ 270.204 *Btu content per cubic foot of natural gas.*

(a) *Measurement.* The Btu content of one cubic foot of natural gas under the standard conditions specified in paragraph (b) of this section is the number of Btu's produced by the complete combustion of such cubic foot of gas, at constant pressure with air of the same temperature and pressure as the gas, when the products of combustion are cooled to the initial temperature of the gas and air and when the water formed by such combustion is condensed to a liquid state.

(b) *Standard conditions.* The standard conditions for purposes of paragraph (a) of this section are as follows: The gas is saturated with water vapor at 60 degrees Fahrenheit under a pressure equivalent to that of 30.00 inches of mercury at 32 degrees Fahrenheit, under standard gravitational force (980.665 centimeters per second squared).

4. The table of contents of Subpart B of Part 270 is amended by deleting "First sale of natural gas subject to differing maximum lawful prices" and by inserting in lieu thereof "[Reserved]."

APPENDIX C

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY
COMMISSION

Docket No. RM80-33

Before Commissioners:
Georgiana Sheldon, Acting Chairman;
Matthew Holden, Jr., George R. Hall
and J. David Hughes.

Final Rules for Part 270, Subpart B, Sections 270.201, 270.202, and 270.204

**ORDER NO. 93-A**
**ORDER DENYING REHEARING AND CLARIFYING ORDER NO. 93**

**(Issued April. 24, 1981)**

On July 16, 1980, the Commission issued final regulations in Order No. 93 (45 Fed. Reg. 49077, July 23, 1980) which amended the Commission's interim rules relating to first sales of natural gas that are resales and the standard for determining the Btu content of natural gas. Eight timely applications for rehearing were filed.[1] Two petitioners also requested a partial stay of the order. Subsequently, two requests for clarification[2] and two applications for stay[3] were filed.

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[1] Michigan Wisconsin Pipe Line Company (also requested clarification); El Paso Natural Gas Company (also requested a partial postponement); Transcontinental Gas Pipe Line Corporation (Transco) (also requested clarification); United Gas Pipe Line Company; Texas Gas Transmission Corporation; Interstate Natural Gas Association of America (INGAA) (also requested clarification); Natural Gas Pipeline Company of America (Natural) (also requested reconsideration and a partial stay); and Consolidated Gas Supply Corportion.

[2] Tennessee Gas Pipeline Company and Valero Transmission Company. (Valero also requested reconsideration.)

[3] Arkansas Louisiana Gas Company (Arkla) and Transco.

On September 15, 1980, the Commission granted rehearing of Order No. 93 solely for purposes of further consideration but denied the two petitions for partial stay of Order No. 93. On October 15, 1980, Natural filed an application for rehearing of the Commission's denial of its petition for a partial stay. On November 14, 1980, the Commission granted rehearing on that application solely for purposes of further consideration.

None of the filings contested or raised issues concerning the regulations regarding resales; all addressed the final rule in § 270.204 which clarified the interim rule describing a standard for determining the Btu content of natural gas. This order on rehearing denies all applications for rehearing or reconsideration of Order No. 93 as well as the two additional petitions for stay; however, it grants requests for clarification of Order No. 93 and the final rule in § 270.204.

This order, like Order No. 93, authorizes natural gas subject to a first sale to be priced based on the number of MMBtu's actually delivered, to the extent such pricing is contractually permissible. The order also makes clear that the Commission will not require continuous monitoring and recording of heating value (MMBtu's) but will accept any reasonable, unbiased method acceptable to the industry and the contracting parties for periodically measuring gas composition, gas heating value or other variables in order to determine the number of MMBTu's actually delivered in a first sale. Pipelines subject to the jurisdiction of the Commission will be permitted the opportunity to demonstrate in their next PGA filing the appropriateness of rate treatment for any claimed retroactive payments occasioned as a result of the Btu Rule controversy.

### I. Background

In Title I of the NGPA, Congress prescribed "ceiling prices" for first sales of natural gas. It did so by establishing maximum lawful prices "per MMBtu" (i.e. Million British Thermal Units) for various categories of

natural gas. The "ceiling price" chargeable for a first sale was to be determined by multiplying the applicable maximum lawful price per MMBtu by the number of MMBtu's subject to the first sale.

In Order No. 93 the Commission promulgated § 270.204 as a final rule. The rule itself merely describes the standard conditions under which the number of MMBtu's in a volume of natural gas is measured.[4] However, recognizing that actual delivery conditions vary widely and are most often different from the defined standard conditions, the Commission noted in the preamble to Order No. 93 that the results of Btu measurements at the defined standard conditions must be adjusted to account for actual delivery conditions before determining the "ceiling price" that can be charged for the sale under the NGPA (i.e., the maximum lawful price per MMBtu multiplied by the number of MMBtu's actually delivered).[5] This statement was predicated on the Commission's belief that, for purposes of determining the NGPA "ceiling price," the number of MMBtu's subject to a first sale is the number of MMBtu's actually delivered to the purchaser.

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[4] The essential parameters of the "standard conditions" are that the gas is at a temperature of 60°F. under a pressure of 30 inches of mercury (approximately 14.73 pounds per square inch), and, at these defined temperature and pressure conditions, the gas is saturated with water vapor. (*See* note 21, *infra*, for full definition.) At these defined temperature and pressure conditions, natural gas will contain approximately 820 pounds of water vapor per million cubic feet of total gas. (*See* Appendix I, "Variance in Water Vapor Content and Heating Value.")

[5] As a practical matter, the determination would most often be made by measuring the gas on a volumetric basis at delivery conditions, multiplying the number of Mcf's so measured times the number of MMBtu's in an Mcf of the gas at delivery conditions, and multiplying the results by the applicable maximum lawful price.

The petitions for rehearing raised several arguments concerning the Commission's statement in the preamble to Order No. 93 that "the results obtained under test conditions, be they those in the rule or others, must be converted to figures that reflect the actual condition of the gas on delivery in order to properly price the gas."[6] Three petitioners alleged that under Order No. 93 the maximum lawful prices for sections 104, 106(a) and 109 would exceed those prescribed under Title I of the NGPA because, under the Natural Gas Act (NGA), the Btu adjustment to the volumetric base price was based on the prevailing industry practice of determining Btu content at standard conditions and permitted no conversion to reflect the number of MMBtu's actually delivered. A fourth petitioner argued that Congress had adopted this prevailing industry practice for all Title I categories of natural gas and that Order No. 93 thus violated all of the NGPA "ceiling prices."

Several petitioners, conceding for purposes of discussion that Order No. 93 did not violate Title I "ceiling prices," questioned the effect of the Commission's statement on specific contractual provisions under which the number of MMBtu's to be attributed to an Mcf of natural gas for pricing purposes is to be based on the results of Btu measurement at the standard conditions. They indicated that the language in Order No. 93 was ambiguous but that an interpretation that nullified such contractual provisions would violate section 101(b)(9) of the NGPA which states that the Title I maximum lawful prices do not nullify or supersede the contract price. Should the contract price depend on the number of MMBtu's actually delivered, they asked what monitoring procedures would be required by the Commission in order to determine the Btu content of the natural gas at delivery conditions.

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[6] 45 Fed. Reg. 49077, 49080.

Two petitioners alleged that the clarifications in the final rule and the explanatory language in the preamble of Order No. 93 sufficiently altered the interim rule in § 270.204 so as to violate the notice and comment provisions of the Administrative Procedure Act (APA) and argued that the final rule should have prospective effect only.[7] In the alternative, these and other petitioners sought a one-time PGA filing to pass through the increase in prices that they alleged would result were the Commission to retain its position on the Btu issue on rehearing.

We have addressed each of these issues in this order.

### II. Lawfullness of "Ceiling Prices" Under Order No. 93

#### A. Petitioners' Argument

The maximum lawful prices published for sections 104 and 106(a) are referenced to the just and reasonable rates that applied to various categories of natural gas under the NGA on April 20, 1977. These rates consisted of a base price per Mcf which was to be adjusted to the extent the gas did or did not contain heating value equal to one MMBtu per Mcf. Although the dollar amount chargeable for a sale of natural gas under the NGA depended on the number of Mcf's actually delivered, the heating value adjustment was based on Btu measurements made at standard conditions and permitted no conversion to actual delivery conditions. Measurement at standard conditions usually understates the number of MMBtu's actually delivered to the purchaser. (See Appendix I for more detailed discussion.)

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[7] The Commission stated in Order No. 93 that the amendments to the interim rule were of a clarifying nature. Therefore, contrary to one petitioner's allegation, their effective date is not September 22, 1980, (the effective date of Order No. 93) but December 1, 1978, the effective date of the interim rule. *Id.* at 49078.

Although sections 104 and 106(a) reference the NGA just and reasonable rates, which were stated on a *per Mcf* basis, the maximum lawful prices for those sections are stated on a *per MMBtu* basis. The Commission's adoption of the per-Mcf base price as the maximum lawful price, when coupled with the requirement under the Btu rule that the maximum lawful price be applied to every MMBtu actually delivered, for purposes of determining the NGPA "ceiling price," has resulted in "ceiling prices" that are higher than some purchasers claim would have been applicable under the NGA (ignoring the differences in inflation adjustments between the NGA and NGPA pricing schemes).

The petitioners argued that, except for the variation in inflation adjustments under the NGA and the NGPA, Congress intended to maintain producer revenue levels extant under the NGA. Noting that the Commission's current regulations confound this alleged purpose, they contended that the Commission must either rescind its statements in Order No. 93, regarding conversion of heat content findings at standard conditions to findings that would obtain at actual delivery conditions, or lower its published maximum lawful prices for sections 104 and 106(a) to counteract the inflationary effect of the language in Order No. 93.[8]

The petitioners argued, in effect, that the phrase "per MMBtu" in the NGPA merely establishes the commodity unit to be measured, not "how" or "when" such measurement is to be made. They argued that the prior practice of pricing based on the results of Btu measure-

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[8] One petitioner limited this argument to sections 104 and 106(a). Two others extended it to section 109 based on statements in the legislative history that the section 109 price is intended to be the same as the section 104 price. The fourth petitioner alleged, based on the statements concerning sections 104 and 109 and the need to interpret the phrase "per MMBtu" consistently, that the argument pertains to all Title I pricing categories.

ments at standard conditions survives and is incorporated into the NGPA because the statute contains no clear intent to abrogate that practice. Several petitioners supported their argument by referring to section by section analyses by Representative Dingell and Senator Jackson in the legislative history[9] and alleging that

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[9] *Statement by Senator Jackson:*

The maximum lawful price computed in accordance with subsection 104(b) is the same as the maximum lawful price computed in accordance with subsection 109(b). The base rate used in both computations is subject to an inflation adjustment. In other words, the just and reasonable rates set by the Federal Power Commission and in effect, as of April, 1977 are frozen as of that date and the inflation adjustment provided under this Act is to be added from that date forward. For example, the new gas rate set in FPC Opinion No. 770-A, applicable to certain eligible producers was $1.45 in April, 1977.

Thus, $1.45 would be the base rate applicable to certain eligible producers subject to section 104 and for all gas subject to section 109. The conferees do not intend to allow both the escalators of 1 cent each calendar quarter provided by Opinion No. 770-A, and the inflation adjustment provided by this Act to operate. Only the inflation adjustment provided by this Act will be allowed to operate after April, 1977. 124 Cong. Rec. S 15020-21 (Sept. 13, 1978).

*Statement by Congressman Dingell:*

Section 104 establishes the ceiling price mechanism applicable to natural gas dedicated to interstate commerce prior to enactment of the bill and for which a just and reasonable rate had been established under the Natural Gas Act. The applicable just and reasonable rate in effect in April, 1977 is referenced as the base price to which the inflation adjustment factor is applied to yield the maximum lawful price in any future month.

The just and reasonable rate under FPC Opinion 770-A applicable to wells spudded on or after January 1, 1975, includes a $.01 escalator each calendar quarter. Moreover, technically speaking, Opinion 770-A establishes a just and reasonable rate of $1.62 per Mcf for this vintage. The $1.42 per Mcf price most commonly referred to is merely the base rate allowed under the decision discounted to its then present value. The $.01 per quarter escalator is designed to yield an average $1.62 per Mcf rate over the projected life of the average reservoir.

these statements indicate Congressional intent to maintain producer revenues for NGA gas at pre-NGPA levels.

B. Summary of Commission Decision

In developing a comprehensive wellhead pricing system for interstate and intrastate sales of natural gas,

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Accordingly, a question has arisen whether the just and reasonable rate referenced in section 104(b)(1)(A)(i) is to include the $.01 quarterly adjustment in the inflation adjustment under section 104(b)(1)(A)(ii). The answer is an emphatic NO. The conferees did not intend a double dip. The "just and reasonable rate * * * applicable * * * on April 20, 1977" is intended to incorporate by reference the $1.45 per Mcf price permitted in April 1977. This price is to be adjusted theeafter only pursuant to the inflation adjustment provided in section 104(b)(1)(A)(ii). (Moreover, lest there be any doubt, the conferees did not intend the reference to be to the $1.62 price either.) That the conferees intended to reference the $1.45 per Mcf price is supported by the construction of section 109, wherein the $1.45 price is set forth. Section 104 deals with area rates, national rates of several vintages, and special relief pricing. Therefore it was not possible or practical to specify each rate. Incorporation by reference was required. In the case of section 109, a specific rate was possible and the rate selected was the just and reasonable rate under Opinion 770-A applicable on April 20, 1977, i.e., $1.45 per Mcf. This assured that these sections would be consistent with one another. A question has arisen respecting the pricing of interstate gas, presently subject to contract, including a warrantly contract, at a price lower than the just and reasonable rate presently applicable to the gas, following expiration of that contract. As the preceding paragraphs indicate, sections 104 and 106 would be applicable. Under section 101(b)(5), the section yielding the higher price would establish the maximum lawful price. If a contract is being satisfied with gas produced from wells of a vintage for which a higher just and reasonable rate has been established by the Commission that just and reasonable rate is referenced as the basis for the maximum lawful price under section 104. Moreover, once the existing contract no longer limits the price (see section 101(b)(9)), the producer could charge and the purchaser could pay any amount up to the maximum lawful price which, under both sections 104 and 106, would be based upon the just and reasonable rate which, but for enactment of this legislation, would have been applicable. 124 Cong. Rec. H 13117 (Oct. 14, 1978).

Congress had to coordinate the previous NGA pricing system with the system of incentive prices it had established under the NGPA for the purpose of encouraging production of domestic supplies of natural gas. It decided that coordination of these two pricing systems required uniformity with respect to the commodity price (volumes versus heating value) as well as the methodology for adjusting the maximum lawful prices based on inflation.

The latter objective required that Congress abolish the quarterly escalator that had applied under the NGA pricing scheme and replace it with the monthly inflation adjustment applicable to the incentive pricing categories. This is the issue addressed by both Congressman Dingell and Senator Jackson in those portions of the legislative history cited by the petitioners.

Congress also elected to impose uniformity with respect to the commodity to be priced and chose to establish energy-referenced prices (dollars per MMBtu) as opposed to volume-referenced prices (dollars per Mcf). This choice was inherent in the Congressional intent to establish incentive prices based on the commodity value of alternative energy sources. Thus the maximum lawful prices for those sections of Title I that reference the NGA just and reasonable per-Mcf rates (as well as section 109) were also stated on a "per MMBtu" basis.

However, Congress left implementation of energy-referenced pricing for these sections to the Commission. Recognizing that a problem might exist in converting NGA just and reasonable rates to NGPA maximum lawful prices, the Statement of Managers adverted to that problem without resolving it by merely referencing the "just and reasonable rates that were in effect on April 20, 1977, as *converted, if necessary* to a

million Btu basis. . . ." (Emphasis added).[10] Thus, it was left to the Commission to resolve the conversion issue.

That Congress imposed this responsibility upon the Commission was entirely predictable because coordination of the NGA and the NGPA required the expertise of that agency familiar with the structure and intricacies of the prior NGA pricing scheme.[11] In discharging this responsibility, the Commission had to examine that NGA pricing scheme and establish a rational way to coordinate it with the NGPA. Had there been a direct correlation between the NGA's just and reasonable rates per Mcf and the NGPA's system of maximum lawful prices, which are stated on a "per MMBtu" basis, the Commission's task would have been a simple one. However, no such direct correlation exists. Thus the Commission was left with two inquiries. How should the number of MMBtu's upon which the NGPA "ceiling price" is based be determined: at standard conditions, *i.e.* in the same manner as Btu content had been determined under the NGA for purposes of quality control, or at actual delivery conditions? And, what should the maximum lawful price per MMBtu be for such gas?

With respect to the Btu measurement issue, the Commission determined that the number of MMBtu's accounted for in establishing the "ceiling price" for a first sale of section 104, 106(a) and 109 gas should be the number of MMBtu's actually delivered. We made

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[10] Joint Statement of Managers, H. Rep. No. 95-1752, 95 Cong. 2d Sess. 82 (1978).

[11] The Congressmen's references in the legislative history to the specific Opinion 770-A rate for post-1974 wells (opinion 770-A rate), upon which the maximum lawful prices for section 109 and one subcategory of section 104 are based, are inconsistent and confusing and suggest that neither Congressman was familiar with such intracacies of the regulatory scheme as the interface between volume-referenced pricing and the Btu adjustment procedure.

this decision based on examination of the commodity pricing concepts embodied in the NGPA and the NGA. In the NGPA's incentive pricing categories, heating value is priced on an *as-delivered* basis.[12] Although the commodity priced was volume rather than heating value, the NGA, too, priced the commodity on an as-delivered basis. Therefore, the Commission decided that consistency within the NGPA and continuity with the NGA required that conversion be accomplished so as to preserve the as-delivered pricing concept for sections whose maximum lawful prices are referenced to the NGA just and reasonable rates. (See Section II C for more detailed analysis.)

With respect to the maximum lawful prices for these sections, we did not think it clear from examination of the NGPA and its legislative history that Congress' purpose was to maintain producer revenue levels for NGA gas at pre-NGPA levels.[13] Certainly the language of the statute itself manifests no such intent. Indeed, Congress had implicitly abandoned any goal of maintaining pre-NGPA revenue levels in favor of uniformity when it imposed the same inflation adjustment for NGA-referenced and incentive pricing categories. Had Congress preserved the escalation provisions in Opinion 770-A, the maximum lawful price for April, 1981, for that subcategory of section 104 gas referenced to the rate for post-1974 wells in Opinion 770-A (Opinion 770-A rate) would have been $1.61 per MMBtu instead of the $2.011 per MMBtu price that results from substitution of the NGPA monthly inflation adjustment methodology. Comparison of these two prices undermines

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[12] *See* discussion *infra*.

[13] Examination of the cited portions of the legislative history suggests that neither Congressman was aware of the Btu conversion issue and that both were addressing themselves to the "double dip" issue relating to escalations of the Opinion 770-A rate. *See* note 11, *supra*.

the petitioners' theory that Congress intended that the NGPA maintain NGA producer revenue levels.[14]

Based on the absence of a direct correlation between the NGPA and NGA pricing schemes, the major alteration in producer revenue levels that Congress itself accomplished by changing the escalation factors for NGA-referenced gas, and the lack of any clear evidence in either the NGPA or its legislative history as to what result Congress would have reached had it resolved the Btu conversion issue itself, we decided to adopt a per-MMBtu maximum lawful price of $1.45 for Opinion 770-A rate gas subject to section 104. By adopting what were essentially the base prices as of April 20, 1977, for section 104 (and section 106(a)), we adapted the NGA's cost-revenue balancing scheme to prices stated on a "per MMBtu delivered" basis in order to promote maximum continuity between the NGA and the NGPA and maintain internal consistency within the Title I pricing scheme. With respect to the latter objective, we note that adoption of the $1.45 base price effects the Congress' intent that the maximum lawful price for the Opinion 770-A subcategory of section 104 be the same as that imposed by Congress for section 109. (*See* discussion in Section II D and Appendix I, "Compatibility of NGA and NGPA Prices.")

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[14] Although the petitioners acknowledged that a change in revenue levels resulted from Congress' replacing the NGA escalation methodology, they argued that Congress intended that no *additional* increases be effected by the Commission. However, the logic and persuasiveness of their argument are seriously impaired when the purported 2% increase in producer revenue levels effected by Order No. 93 is compared to the substantial 39% increase in the maximum lawful price implemented by Congress itself. (Had Congress not changed the NGA quarterly escalator, the increase in the maximum lawful price would have been 11 percent, rather than 39 percent.)

C. The Measurement Issue

Like the NGA, the NGPA establishes pricing guidelines for sales of natural gas. The commodity priced under NGA regulations was *volume* units (Mcf's) of natural gas delivered. However, one of the purposes for enacting the NGPA was encouragement of domestic production of natural gas. Congress viewed energy sources as fungible and attempted to encourage domestic production of natural gas by pricing it based on its comparable energy value with respect to alternative fuel sources. In order to encourage certain new production it set a maximum lawful price for section 102 equivalent to the average commodity value of the refiner acquisition cost of domestically produced oil.[15]

Because of a very clear physical difference between natural gas and other fuels, true comparison can only be achieved by applying the prescribed maximum lawful price to the number of MMBtu's in a volume of gas at delivery conditions rather than to some theoretical quantity such as the number of MMBTu's at standard conditions. This is true because, unlike other fuels, which are either liquid or solid as opposed to gaseous, water vapor in natural gas displaces hydrocarbon compounds, resulting in a diminution of the heating value of the natural gas. Measurement at standard conditions understates the heating value of the gas at delivery conditions.[16] Therefore, it is essential that the "ceiling price" be based on the actual heating value of the gas, *i.e.*, the number of MMBtu's actually delivered, in order to achieve the Congressional purpose of pricing nat-

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[15] H. Rep. No. 95-1752 at 67 and 68.

[16] The amount of water vapor contained in natural gas at the standard temperature and pressure conditions greatly exceeds the amount of water vapor that can be contained in natural gas at most pressure and temperature delivery conditions. (*See* note 4, *supra*, and graph in Appendix I.)

ural gas by comparison to the heating value of the selected alternative fuel.

Like incentive pricing categories such as section 102, the maximum lawful prices for sections 104, 106(a) and 109 are stated on a "per MMBtu" basis. Although the difference in pricing mechanisms between section 102 and sections 104 and 106(a) make their direct comparison more difficult for purposes of interpreting the phrase "per MMBtu," (sections 104 and 106(a) reference prices extrinsic to the statute itself, while section 102 states a specific monetary amount), direct comparison of the pricing mechanisms in sections 102 and 109 is fairly straightforward because the structure of section 109 is identical to that of section 102, save for the differences in the stated monetary amount. This identity suggests that the "ceiling price" for section 109 should also be based on the number of MMBtu's actually delivered.

Although it is not essential that identical provisions in a statute be interpreted consistently, there must be some compelling reason to do otherwise. None exists here. The legislative history indicates clearly that the maximum lawful price for section 109 is the same as the maximum lawful price for the subcategory of section 104 gas that is referenced to the Opinion 770-A rate. However, contrary to the petitioners' arguments, the legislative history provides no conclusive evidence as to what that section 104 rate should be when converted to a "per MMBtu" basis. Thus it fails to provide a compelling basis for disparate interpretations of the phrase "per MMBtu" in sections 102 and 109 such that the number of MMBtu's subject to a first sale of section 102 gas would be accounted for differently from the number of MMBtu's subject to a first sale of section 109 gas.

What the legislative history does provide, given identical interpretations of the phrase "per MMBtu" for sections 102 and 109 and the Congressmen's comments in

the legislative history concerning the identity of the maximum lawful prices in section 109 and the Opinion 770-A subcategory of section 104, is a basis for interpreting the phrase "per MMBtu" in section 104 consistently with its interpretation in sections 102 and 109, i.e., as a requirement that the "ceiling prices" for section 104 (and, by implication, section 106(a)) be based on the heating value of the gas at actual delivery conditions.

Requiring that the "ceiling price" for first sales of section 104, 106(a) and 109 gas be based on the number of MMBtu's actually delivered also promotes continuity with the NGA by preserving the per-unit-delivered commodity pricing concept employed with respect to volume units under the NGA.

For these reasons, the Commission has decided to retain its original position that the NGPA "ceiling price" is dependent upon the number of MMBtu's actually delivered rather than the number of MMBtu's measured at standard conditions.

### D. The Maximum Lawful Price Issue

Convinced that the commodity unit priced under the NGPA is an MMBtu and that the NGPA "ceiling prices" are to be determined on an as-delivered basis, the Commission was next required to explore the suggestion made by some petitioners that the NGA's $1.45 per Mcf base price on April 20, 1977 be reduced to $1.42 in order to maintain pre-NGPA producer revenue levels for that subcategory of section 104 gas that was previously priced at the Opinion 770-A rate and the further suggestion that all other NGA-referenced rates be similarly reduced.

There is no technical theory that compels adoption of lower maximum lawful prices such as $1.42 because there is no direct correlation between the NGA and NGPA pricing schemes. Furthermore, as we have already indicated, neither the statutory language nor the

legislative history provides any clear indication of what result Congress would have reached had it resolved the conversion problem itself. Faced with the responsibility of coordinating the disparate pricing schemes imposed under the NGA and the NGPA, the Commission decided to resolve the conversion issue by pursuing a policy of preserving internal consistency within the Title I pricing scheme and ensuring maximum conceptual continuity between the NGPA's per-MMBtu-delivered pricing scheme and the cost-revenue balancing methodology under which the NGA's per-Mcf base prices were originally established. For the reasons stated below, that policy is best promoted by adopting the base prices for the various categories of NGA gas as the maximum lawful prices for sections 104 and 106(a). We find support for this result by noting that Congress intended identity of pricing for section 109 and the Opinion 770-A subcategory of section 104 and that adoption of the $1.45 base price will impose the same maximum lawful price for that subcategory of section 104 as the maximum lawful price Congress *stated* in section 109.

As has been previously noted, the just and reasonable producer rates to which the maximum lawful prices in sections 104 and 106(a) are referenced were not established on a "per MMBtu delivered" basis. Instead, they were based on the number of Mcf's delivered and included a Btu quality adjustment determined by the number of MMBtu's measured at standard conditions. Because the NGA pricing scheme was inconsistent with respect to the methodologies for establishing volume as opposed to Btu content, no direct correlation exists between the NGA just and reasonable rates, in which heating value was an arbitrarily-derived numerical factor used to make a quality adjustment to the volume-referenced price, and the NGPA energy-referenced "ceiling prices" in which heating value is the price determinant.

Although it is mathematically possible to convert the Opinion 770-A rate of $1.45 per Mcf to a rate of $1.42 per MMBtu, in an attempt to maintain NGA producer revenue levels, it cannot be shown that such a procedure would be applicable to all (or any) sales of that subcategory of section 104 gas. This is true because, as explained earlier, the number of MMBtu's per Mcf varies with delivery conditions, and delivery conditions vary widely.[17] Furthermore, adoption of the $1.42 price elevates an arbitrarily-derived Btu adjustment factor above the cost-referenced base price as the conceptual vehicle for converting NGA rates to NGPA maximum lawful prices, based on mere semantic happenstance. Although both the maximum lawful prices and this arbitrary adjustment factor are expressed in terms of Btu's, their conceptual underpinnings are entirely different and cannot be reconciled.

Absent a direct correlation between the NGA and NGPA prices, the Commission feels justified in adopting $1.45 (the base price) as the maximum lawful price for the Opinion 770-A subcategory of section 104 gas. Under the NGA pricing scheme, $1.45 was essentially the quotient obtained by dividing projected finding and production costs by the reported number of Mcf's that would ultimately be produced from discovered reserves. The production data were based on the number of Mcf's available at actual delivery conditions. The touchstone for this computation was the concept of an "average Mcf." Such an average Mcf would typically contain approximately seven to seventy pounds of

[17] Although many interstate contracts limit the water vapor content of natural gas at delivery to seven pounds per MMcf, not all contracts contain such provisions, and not all gas is so composed at delivery.

water vapor per MMcf.[18] The adjustment for Btu content, based on standard conditions, was simply superimposed on this per-unit-delivered, cost-referenced rate. It assumed a water vapor content of 820 pounds per MMcf. As a technical matter, its application to the production data would underestimate the average MMBtu content of the reported volumes by about 1.74%.[19]

This inconsistency in measurement methodologies could have been eliminated either by adjusting the production data prior to rate derivation or by keying the Btu adjustment to actual delivery conditions. Had the production data been converted to standard conditions prior to rate derivation, the number of Mcf's would have been reduced commensurate with the reduced heating value of an Mcf at standard conditions. Reduction of the denominator in the cost equation (i.e. the number of Mcf's) would have produced a base price greater than $1.45 per Mcf. Subsequent adjustments to the per-Mcf base price to reflect the Btu content of the gas at standard conditions (which represents a decrease in the number of MMBtu's at actual delivery conditions) would have resulted in a just and reasonable rate of essentially $1.45 per MMBtu actually delivered. (*See* "Sample Computation" in Appendix I.) The Commission has achieved essentially the same result for purposes of establishing the NGPA "ceiling price" for Opinion

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[18] This assumes a delivery temperature in the range of 50°F to 70°F and delivery pressures in the range of 100 to 1000 pounds per square inch. These ranges of temperature and pressure would likely cover most delivery conditions.

[19] This was no obstacle to its use for quality control purposes, however, and it had the added advantage of conforming to industry quality control practices. However, its acceptance for quality control purposes does not support, and is in fact unrelated to, its adoption as the determining factor in changing from a volume-referenced to an energy-referenced pricing scheme.

770-A rate gas subject to section 104 by adopting $1.45 as the maximum lawful price and requiring that it be applied to the number of MMBtu's actually delivered.

The Commission believes that our conversion policy is reasonable and justified. We note that it effects the Congress' intention that the maximum lawful price stated in section 109 be identical to the maximum lawful price for gas previously subject to the Opinion 770-A rate. We are unpersuaded that we should engender the confusion and uncertainty that would result were we now to alter our decision with respect to this policy and amend the maximum lawful prices.

### III. Contractual Provisions and Monitoring

#### A. Petitioners' Arguments

Every petitioner that filed an application for rehearing, reconsideration, or clarification of Order No. 93 interpreted Order No. 93 as possibly requiring that a purchaser pay the applicable maximum lawful price for each MMBtu actually delivered. Several petitioners noted that the majority of sales contracts price natural gas on an Mcf rather than on an MMBtu basis and provide for adjustment of the volumetric price to reflect the Btu content of the gas. They explained, with regard to this Btu adjustment, that a large number of such contracts require that the Btu content of gas be determined based on measurement at the standard conditions, despite the fact that the actual delivery conditions with respect to temperature and pressure may be different from the standard temperature and pressure conditions and the contract may require delivery of relatively dry gas (e.g. seven pounds of water vapor per MMcf). The petitioners complained that setting a "ceiling price" based on the number of MMBtu's actually delivered might nullify such contractual provisions.

Further, petitioners argued that if "ceiling prices" were based on the number of MMBtu's actually delivered, the cost of continuously monitoring actual deliv-

ery conditions would be prohibitively high. Assuming that implementation of Order No. 93 requires measurement of the Btu's actually delivered, petitioners were concerned that specific guidance had not been given as to whether and how to estimate the actual Btu content of gas at delivery conditions, other than the petitioners' inference that continuous monitoring would be required. Petitioners requested specific guidance as to what measurement procedures might be employed.

B. Commission Decision

Given that the NGPA pricing scheme is a significant departure from past Commission and industry practice, it is not surprising that its implementation has created confusion both for sellers and purchasers. Under the NGPA pricing scheme the "ceiling price" permitted under Title I for the sale of natural gas is based on the number of MMBtu's actually delivered. In adopting heating value as a pricing mechanism rather than a quality control index, Congress did not intend to override the terms of any contract unless the contract establishes a price in excess of the Title I "ceiling price." Thus, under the terms of a contract, natural gas may be priced by volume, by heat content, or by any other reasonable means agreed to by the parties so long as the price paid does not exceed the "ceiling price" permitted under Title I.

The Btu rule and explanatory text affect the determination of the "ceiling prices" that can be charged for natural gas under the NGPA. However, they do not require that the industry change its measurement or pricing practices. Temperature and pressure are routinely measured at the orifice meter of a natural gas sales point, and determination of Btu content for pricing purposes (based on chemical analyses or direct measurement with a calorimeter) has been required for years under the NGA pricing scheme. The Commission is aware of no significant problems with obtaining these

measurements. As the Commission stated in order No. 93,[20] we will accept any method accepted in the natural gas industry for determining the Btu content of the gas sold, including measurement procedures and measurement frequency. The Commission will also permit industry-accepted methodologies for converting Btu measurements at standard conditions to Btu content at actual delivery conditions. No further guidance needs be given except to say that the method cannot be biased so as to result in prices that exceed the permissible "ceiling prices."

### IV. Effective Date and PGA Trackers

#### A. Petitioners' Arguments

Several petitioners, assuming that Order No. 93 requires a continuous determination of the number of MMBtu's actually delivered, requested that Order No. 93 not apply to sales that occurred prior to the effective date of the order. Two petitioners argued that making Order No. 93 effective retroactive to December 1, 1978, would violate the APA because the languge of the interim rule in § 270.204 suggested that the prior Commission practice of adjusting the base price based on the number of MMBtu's measured at standard conditions, rather than the number of MMBtu's actually delivered, was to be continued under the NGPA.

Other petitioners expressed concern that they may owe money to producers for deliveries that have occurred since December 1, 1978, and requested, as an alternative to modifying the effective date of Order No. 93, that the Commission permit a one-time PGA filing to authorize passthrough of any payments required as a result of the Btu rule.

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[20] 45 Fed. Reg. 49077, 49080.

B. Commission Decision

Although the interim Btu rule was vague, contrary to the petitioners' allegations it was not identical to the Btu adjustment provisions contained in §§ 2.56a(c)(1) and 2.56b(d)(1) of the commission's NGA regulations.[21] The Commission's intent in issuing the interim Btu rule was merely to describe the standard conditions for measuring the Btu content of natural gas. Unlike the Commission's previous policy, this measurement was *not* to be "used in computing [a] rate adjustment." That phrase, which appeared in the NGA regulations, was

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[21] The text of the interim rule in § 270.204 reads as follows:

For purposes of determining the number of Btu's per unit volume of natural gas, the Btu content of one cubic foot of natural gas is the number of Btu's produced by the combustion, at constant pressure, of the amount of gas which would occupy a volume of 1.0 cubic foot at a temperature of 60 degrees Fahrenheit, saturated with water vapor and under a pressure equivalent to that of 30.00 inches of mercury at 32 degrees Fahrenheit, and under standard gravitational force (980.665 centimeters per second squared) with air of the same temperature and pressure as the gas, when the products of combustion are cooled to the initial temperature of the gas and air and when the water formed by combustion is condensed to the liquid state.

The text of §§ 2.56a(c)(1) and 2.56b(d)(1) reads as follows:

The Btu content of the natural gas used in computing this rate adjustment shall be the number of British thermal units (Btu) produced by the combustion, at constant pressure, of the amount of the gas which would occupy a volume of 1.0 Cubic foot at a temperature of 60°F. saturated with water vapor and under a pressure equivalent to that of 30.00 inches of mercury at 32°F. and under standard gravitational force (980.665 centimeters per second squared) with air of the same temperature and pressure as the gas, when the products of combustion are cooled to the initial temperature of the gas and air and when the water formed by combustion is condensed to the liquid state.

specifically and intentionally deleted from the interim rule in § 270.204.

Nevertheless, some confusion developed because the interim rule language that replaced that phrase was itself ambiguous. Therefore, the Commission modified the wording of § 270.204 in Order No. 93 and supplied accompanying text explaining the Commission's position with respect to the issue of Btu measurement. Because Order No. 93 is but a clarification of the interim rule, it is effective for all first sales of natural gas made on or after December 1, 1978, the effective date of the interim rule.

With respect to the PGA issue, natural gas pipelines under the Commission's jurisdiction will be permitted to record any necessary retroactive payments in Account 191 ("Unrecovered purchase gas costs"). Such payments should be recorded as a subaccount of Account 191 or should be otherwise separately identified. The pipeline will be afforded the opportunity to demonstrate in its next PGA filing that the claimed amounts are correct and that rate treatment is appropriate for any claimed retroactive payments.

**The Commission Orders:**

The applications for rehearing of Order No. 93 and Natural's petition for rehearing of the Commission's order denying its petition for partial stay of Order No. 93 are denied. The applications for stay filed by Arkla and Transco are also denied. Order No. 93 is clarified as set forth above.

By the Commission.

(SEAL)

/s/ Kenneth F. Plumb

KENNETH F. PLUMB,
Secretary.

## TECHNICAL CONSIDERATIONS

The Commission has examined, among the other matters discussed in this order, certain fundamental technical considerations pertaining to the Btu Rule. Of particular interest are:

- features related to the occurrence of water in natural gas;
- factors which cause variances in the water content of natural gas and attendant changes in the heating value of natural gas; and
- considerations related to the development of producer just and reasonable rates under the NGA and the degree of compatibility between those rates and the maximum lawful prices established under the NGPA.

The following discussion addresses some of the concerns expressed by the petitioners and helps explain the Commission's rationale in reaching its decision in Order No. 93 with respect to the Btu pricing issue.

### Occurrence of Water in Natural Gas

It is important at the outset to recognize that the reasons for the occurrence of water in natural gas relate to expected and natural phenomena. Most geologic formations from which natural gas is produced are the results of fragmented materials or precipitates deposited in ageous environments (e.g., shallow seas, lakes, deltas, streams, etc.). Additionally, the organic material (plant and/or sea life) from which natural gas originated was also deposited and decomposed in ageous environments. Therefore, natural gas that has accumulated in or migrated to the reservoirs from which it is now produced has been, and in most instances still is, in contact with water (i.e. the chemical compound $H_2O$).

Because of the physical contact of natural gas with water, water is produced along with gas. Water may be present in produced natural gas as a free liquid (i.e., in a liquid phase) or as a vapor (i.e., in a gaseous phase). Most often it is present in produced gas as both a liquid and a vapor. Free liquid water interferes with production and transportation operations and is removed from the natural gas stream. Water vapor reduces the heating value of natural gas, and it is that feature which is central to the considerations in this order and in Order No. 93.

**Variance in Water vapor content and heating value**

The extent to which water in any given natural gas sample or natural gas stream exists or remains in a gaseous phase, as opposed to a liquid phase, depends upon the water vapor capacity of the gas. Water vapor capacity of gas is a function of the pressure and temperature to which the gas is subjected. Changes in the pressure and temperature of gas, and resulting changes in its water vapor capacity, can occur within the reservoir; during production, separation, and treating or conditioning operations; and during pipeline entry and transportation.

The relationships between water vapor capacity and temperature and pressure are clearly shown in the graph at the end of this appendix. It is important to understand that at any set of pressure and temperature conditions, gas has a specific water vapor capacity. Once that capacity is obtained, the gas is completely saturated with water vapor. If either pressure or temperature is changed, the water vapor capacity of the gas (i.e., its saturation limit) will change. The gas would then be capable of containing either more water vapor or less water vapor, depending upon the direction of change in pressure or temperature. (See graph.)

Water has no available heat energy. Unlike the hydrocarbon compounds in natural gas, it will not combine with oxygen and generate heat through combustion. The presence of water vapor molecules in natural gas displaces energy-producing hydrocarbon molecules and, therefore, reduces the effective heating value of the gas.

Order No. 93 addressed the water vapor/heating value relationship and, among other things, articulated the standard method for measuring the heating value of natural gas. Specifically, Order No. 93 established the "standard conditions" for measuring the number of British Thermal Units (Btu's) in one cubic foot of gas:

> "...the gas is saturated with water vapor at 60 degrees fahrenheit under a pressure equivalent to that of 30.00 inches of mercury at 32 degrees fahrenheit, under standard gravitational force (980.665 centimeters per second squared)."

In recognition of the fact that the conditions under which gas is actually delivered would vary widely and would likely be different from the standard conditions, Order No. 93 also stated that the heating value of gas determined at standard conditions (or other measurement conditions) must be converted to reflect the heating value at actual delivery conditions in order to properly price the gas.

The standard conditions established in Order No. 93 are based on long-standing, widely-used standards for natural gas measurement. Standards are necessary in natural gas measurement because of the chemical nature and physical behavior of natural gas. In any given natural gas system (i.e., sample, stream, etc.) the following essential relationships exist:

- Gas volume expands with increased temperature;
- Gas volume shrinks with increased pressure;

- Gas capacity to absorb water vapor increases with higher temperature;
- Gas capacity to absorb water vapor decreases with higher pressure; and
- Gas heating value (i.e., MMBtu's per Mcf) decreases with higher water vapor content, and vice versa.

The standard measurement conditions cited in Order No. 93 recognize the above relationships and their interdependence. The standards, in effect, define both volume and water vapor content. Volume is defined by the prescribed temperature and pressure conditions. Water vapor content is defined as being that quantity of water vapor that would be present in the gas if the gas were fully saturated with water vapor at the defined standard temperature and pressure.

At the defined standard conditions, water-saturated gas will contain approximately 820 pounds of water vapor per million cubic feet of total gas. However, the standard conditions would actually exist in only a very limited number of gas sale-purchase transactions, i.e., only where pressure and temperature conditions at delivery are identical to the standard conditions (30 inches of mercury and 60° F) and where the gas at delivery is saturated with water vapor.[1] Because of contractual provisions, gas delivered to a pipeline will, by comparison, often contain only about seven pounds of water per

[1] In this regard, it should be noted that the standard pressure, 30 inches of mercury, is approximately the same as atmospheric pressure. Local and regional variances from the 30-inch standard are caused by weather patterns and differences in elevation. Operating pressures near atmospheric pressure may occur on portions of some gas distribution systems, but the pressures encountered in most production and transportation operations greatly exceed atmospheric pressure.

million cubic feet of total gas.[2] Water vapor in gas fully saturated with water, at the defined standard pressure and temperature, will occupy about 1.74 percent of the total gas volume, whereas, water vapor in gas containing seven pounds of water vapor per million cubic feet of gas will occupy only about 0.015 percent of the total gas volume. These relationships show that there is little comparability between the amount of water vapor contained in gas at most delivery conditions vis-a-vis the amount contained at the prescribed standard conditions.

Because water vapor displaces energy-producing hydrocarbon molecules, heating value (MMBtu's per Mcf) of natural gas varies inversely with water vapor content. The effect of reducing the water vapor content of natural gas from 820 pounds per MMcf to seven pounds per MMcf is an obvious increase in the heating value (i.e., MMBtu's per Mcf) of the gas stream.

Thus a significant disparity clearly exists between the heating value of gas at the standard conditions and its heating value at actual delivery conditions. The degree of disparity is dependent upon the actual delivery conditions (pressure and temperature). Given the collage of pressure and temperature conditions at which gas sale-purchase transactions occur, there is no known, uncontroverted correction factor that would have universal application for adjusting heating value determinations at the defined standard conditions to the heating value at actual delivery conditions.

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[2] It should be made clear that it is physically impossible under most delivery conditions for natural gas to contain the 820 pounds of water vapor per million feet of total gas that is obtained at "standard conditions." Under most delivery conditions, the maximum amount of water vapor in gas will range from about 7 to 70 pounds per million cubic feet of total gas. (*See* graph.)

Based on this analysis the Commission has stated that the heating value of gas determined at the presribed standard conditions (or any other test conditions) must be adjusted to reflect the heating value of gas at actual delivery conditions, whatever those conditions are for a particular first sale.

## COMPATIBILITY OF NGA AND NGPA PRICES

There are several considerations that should be addressed relative to the correlation between the NGA volume-referenced prices and the NGPA energy-referenced prices. Direct correlation is frustrated by an inconsistency between the concept and methodology used to derive the NGA base prices and the concept and methodology underlying Btu adjustments applied to those base prices. The basis for this inconsistency is largely historic. Specific recognition of the inconsistency itself is necessary in order to obtain compatability between the NGA and NGPA pricing schemes.

The Btu adjustment procedure was originally adopted under the Federal Power Commission's (FPC's) in-line pricing system which was based on contract provisions predominant in the producing area. It was designed to encourage producers in certain areas to deliver high Btu gas for mixing with low Btu gas that could not otherwise be brought into the interstate market[3]. In deciding that Btu content should be reported at standard conditions, the FPC noted that this requirement conformed to the requirements of Form 2 and that it was accepted by the scientific community and the natural gas industry. The FPC also noted that the Btu adjustment procedures were actually part of the in-line, contract-pricing concept because they were routinely used in contracts upon which the in-line prices were based.

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[3] *Texaco, Inc.*, Opinion 464, 33 F.P.C. 1228, 1235 (1965).

Later, the FPC established area rates which initially included a rate for "flowing gas" and a rate for "new gas." That pricing approach was later amended to develop a nationwide base price for "new gas;" still later amendments were made to recognize the "vintage" of the gas. These producer base prices were established for natural gas volumes (Mcf at 14.73 psia and 60° F) delivered to a pipeline. Adjustments to the NGA volume-referenced base prices were permitted in order to recognize variance in the heating value (MMBtu's per Mcf) of gas and were based on the results of Btu measurements at standard conditions.[4] However, as with the in-line pricing methodology, no conversion was permitted to account for the heating value at actual delivery conditions.[5]

Throughout the area and nationwide rate proceedings establishing NGA producer prices, the FPC was dealing with costs and natural gas volumes reported by the industry. The reported costs were in dollars, and the reported volumes were either the quantities of natural gas (Mcf's) actually produced on oil and gas leases, in the case of "flowing gas," or the quantities of natural gas that would ultimately be produced from discovered reserves, in the case of "new gas."

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[4] The first attempts by the FPC at providing for Btu adjustments to volume-referenced area rates had a so-called "Btu Gap." The base price prescribed was applicable to natural gas containing 1000 to 1050 Btu's per Mcf. Adjustments to the base price were made for gas below 1000 Btu's per Mcf and for gas above 1050 Btu's per Mcf. (Permian Basin Area Rate Proceedings Opinion 468 (34 FPC 159 at 223).) No adjustment was applicable for gas in the 1000 to 1050 Btu range. Later FPC action eliminated the Btu-Gap to provide for price adjustments to the NGA base prices for gas above and below 1000 Btu's per Mcf.

[5] The standard conditions used for determining Btu content during the NGA pricing era essentially the same as those prescribed in Order No. 93.

In an overly simplified explanation, the base prices were the quotient obtained by dividing these costs by these volumes. The prices, in effect, represented the average revenue requirement (within the NGA's just and reasonable standard) for producing an "average Mcf" of gas and making it available for delivery to a pipeline. A cost-revenue balance was implicit in these rates. It should be emphasized, however, that the reported volumes were not adjusted for quality (Btu's or otherwise) prior to rate derivation. The reported volumes were at various pressure and temperature delivery conditions, which varied substantially from the 30 inches of mercury and 60°F standard pressure and temperature conditions. As such, the reported volumes would not contain the 820 pounds of water vapor per MMcf of total gas that exist at standard conditions. Rather, the reported volumes would typically contain approximately seven to seventy pounds of water vapor per MMcf. Therefore, the heating value per Mcf at delivery conditions would be significantly greater than the heating value per Mcf of the same gas if referenced to standard conditions.

In essence, then, imposition of the Btu adjustment procedure on the cost-revenue balancing scheme introduced a foreign element into the pricing methodology employed by the FPC in setting the base prices. That foreign element is the source of the present pricing controversy under the NGPA.

In order to have resolved this inconsistency for purposes of establishing a base price comparable on an energy-equivalent basis to volumes at standard conditions, the delivered volumes would have had to be decreased. The resulting base price would have been correspondingly increased. Subsequent Btu adjustments to the base price (i.e., the price per Mcf of 1 MMBtu per Mcf gas at standard conditions) would have resulted in

pricing the gas essentially on an as-delivered-MMBtu basis.[6]

The effect of the failure to resolve this inconsistency is an understatement of the actual number of MMBtu's contained in each Mcf delivered to the buyer. With the relatively low gas prices of the past, the inconsistency apparently was acceptable for quality control and for pricing purposes to both the seller and the buyer.[7] However, the change under the NGPA to reliance on heat content (MMBtu's) of gas as a price determinant rather than a quality control adjustment to a volume-referenced base price, has created a controversy which can be traced to this inconsistency. Under the NGPA, prices are established for the quantity of heat energy (MMBtu's) involved in a first sale. The NGPA pricing structure makes no specific reference to volumes or volume measurement. (In actual practice, however, most gas involved in producer-pipeline transactions is still measured on a volumetric basis although it is now priced on an energy basis.) If gas is now to be priced on the basis of the heating energy actually delivered to a buyer, the former NGA adjustment procedures with respect to heating value are not technically correct for use in the energy-referenced pricing scheme. Those procedures evolved from the in-line pricing era, during which natural gas prices were based on contract provisions predominant in the producing area. They made sense for quality control purposes and for encouraging the delivery of high Btu gas. When carried forward to

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[6] In the alternative, the Btu adjustment could have been based on actual delivery conditions. *See* "Sample Computation Showing Lack of Direct Correlation Between Previously Established NGA Volume-Referenced Prices and NGPA Energy-Referenced Prices."

[7] What support exists for the prescribed NGA Btu adjustment procedure derives from its identity with provisions in most producer-pipeline contracts.

the area and national ratemaking methodologies, which abandoned the in-line, contract-referenced pricing concept, they created a basic technical inconsistency between the base prices and the Btu adjustments made to those prices. Whatever previous usefulness may have derived for producer ratemaking purposes from the Btu adjustment procedures no longer exists. The procedures have now become a "vestigial organ" and are not an integral component of the NGPA pricing anatomy.

## CONCLUSION

In addition to being technically (and legally) correct, the Btu measurement and pricing procedures should also be administratively efficient. The procedures described in Order No. 93 satisfy those tests. Therefore, to the extent that it is contractually permissible, the actual delivery conditions, whatever they are, should be recognized in determining the quantity of heat energy involved in a gas sales/purchase transaction. Any other approach, as well as a downward adjustment of the maximum lawful prices, would not be technically correct and would likely result in administrative "nightmares" for regulatory agencies and for all segments of the natural gas industry.

**SAMPLE COMPUTATION SHOWING LACK OF DIRECT CORRELATION BETWEEN PREVIOUSLY ESTABLISHED NGA VOLUME-REFERENCED PRICES AND NGPA ENERGY-REFERENCED PRICES**

- Assume cash flow of $1 million.
- Assume reported volumes are 1 million Mcf.
- Assume gas is "dry" (i.e., contains no water vapor) and has a heating value of 1 MMBtu per Mcf.
- The correct price under the NGPA pricing procedures should be $1.00 per MMBtu of gas actually delivered.

However, application of the NGA base-price Btu adjustment procedure would produce the following results:

The heating value of the gas would be converted from actual delivery conditions to "standard conditions" and would, therefore, contain:

1 MMBtu/Mcf × (100.00% Total Gas − 1.74% water vapor) = 0.9826 MMBtu/Mcf

The revenues generated as a result of this Btu adjustment would be determined as follows:

0.9826 MMBtu/Mcf × 1 million Mcf × $1.00/MMBtu =
982,600 MMBtu × $1.00/MMBtu = $982,600

In order to use the NGA base-price Btu adjustment procedure and generate a cash flow equivalent to $1,000,000, the reported volumes would have to be adjusted downward so as to produce a higher "base rate." The adjusted base rate ("B") needed to maintain revenues would be computed as follows:

$$\$1{,}000{,}000 = 0.9826 \text{ MMBtu/Mcf} \times 1 \text{ million Mcf} \times B$$

$$B = \frac{1{,}000{,}000}{0.9826 \text{ MMBtu/Mcf} \times 1 \text{ million Mcf}}$$

$$B = \frac{\$1{,}000{,}000}{982{,}600 \text{ MMBtu}}$$

$$B = \$1.017/\text{MMBtu}$$

The downward adjusted volumes needed to derive the $1.0177 per MMBtu rate would be computed as follows:

> 1 Mcf of gas at actual delivery conditions contains 1 MMBtu. If the gas were converted to standard conditions the same Mcf would contain 0.9826 MMBtu's because water vapor would occupy 1.74% of the total gas volume. The "energy equivalent" volumes at actual delivery conditions would, therefore, have to be reduced by 1.74%:
>
> 1 million Mcf × (100.00% − 1.74%) = 982,600 Mcf

The adjusted base rate ("B") would result from the following:

$$B = \frac{\$1,000,000}{982,600 \text{ Mcf} \times (1 \text{ MMBtu/Mcf})}$$

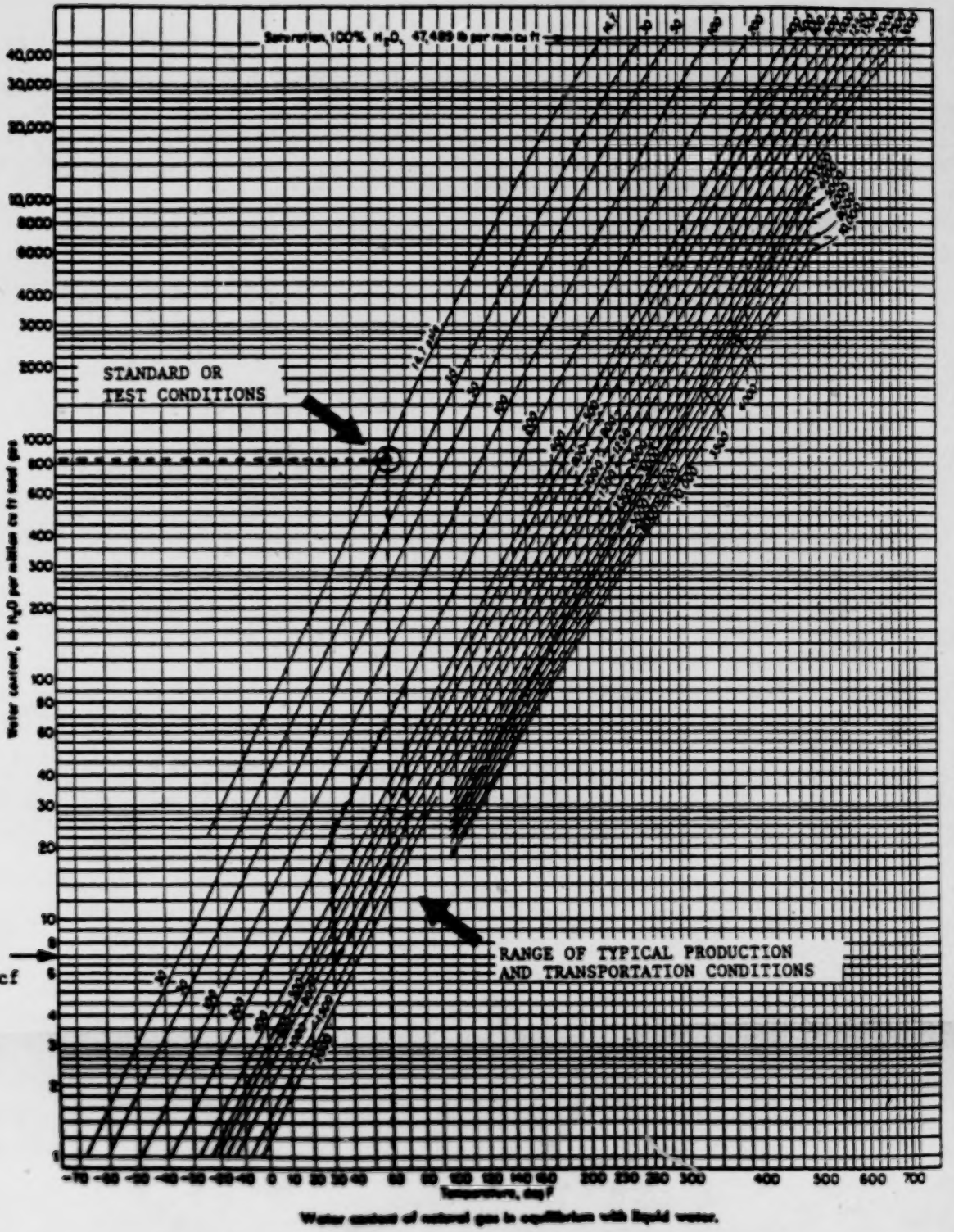
$$B = \$1.0177/\text{MMBtu}$$

The revenues generated under this procedure would be as follows:

0.9826 MMBtu/Mcf × 1 million Mcf × $1.0177/MMBtu =
982,600 MMBtu × $1.0177/MMbtu = $1,000,000

This example demonstrates that in order to obtain correct pricing for MMBtu's actually delivered, using the NGA base-price Btu adjustment procedures, volumes reported at actual delivery conditions (here assumed to contain no water vapor) would have to be reduced prior to deriving a "base rate" per Mcf. If this is not done, revenues would be less than the requisite cash flow. *Note*, however, that this is only an explanatory computation. The same correct result is obtained under the NGPA pricing procedures if the NGA per Mcf base price is retained and expressed on a per-MMBtu basis and the heating value of the gas is determined based on actual delivery conditions. In this example:

1 MMBtu/Mcf × 1 million Mcf × $1.00/MMBtu = $1,000,000




Ref: Adapted from Katz, Cornell, Kobayashi, Poettmann, Vary, Elenbaas and Weinaug, Handbook of Natural Gas Engineering (McGraw-Hill Book Company, Inc., New York, Toronto, London, 1959). Reprinted with permission © 1959 McGraw-Hill Book Company, Inc.

APPENDIX D

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY
COMMISSION

Before Commissioners:
C. M. Butler III, Chairman;
J. David Hughes and A. G. Sousa.

Docket No. RM80-33

Final Rules for Part 270, Subpart B,
Sections 270.201, 270.202, and 270.204

**ORDER VACATING PARTIAL STAY AND AMENDING REGULATIONS**

**(Issued December 24, 1981)**

On August 20, 1981, the Federal Energy Regulatory Commission (Commission) granted a partial stay of the December 1, 1978, effective date of the Btu rule (18 C.F.R. § 270.204), pending further order, for the period December 1, 1978, to April 24, 1981. The Btu rule prescribes the standard for determining the Btu content of natural gas in calculating maximum lawful prices under the Natural Gas Policy Act of 1978 (15 U.S.C. §§ 3301-3432) (NGPA).

The Commission has reconsidered the effective date of the Btu rule. For the reasons discussed herein and previously stated in Order Nos. 93 and 93-A, the Commission reaffirms the December 1, 1978, effective date. Accordingly, the partial stay of the effective date is vacated, and, effective December 1, 1978, maximum lawful prices for first sales of natural gas are to be determined by the actual Btu's delivered. In addition, § 270.204 of the Commission's regulations is clarified by adding a new paragraph stating that the maximum lawful price for any first sale is applied to the Btu's actually delivered.[1]

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[1] Persons allegedly aggrieved by the Commission's decision have previously sought, and been denied, rehearing on the ef-

## I. BACKGROUND

The NGPA was signed into law on November 9, 1978. On November 28, 1978, the Commission issued interim regulations, effective December 1, 1978, to implement the NGPA. One of the Interim regulations was § 270.204. That section described the standard test conditions for determining the Btu content of a unit volume of natural gas.

On July 16, 1980, the Commission issued Order No. 93 (45 *Fed. Reg.* 49077, July 23, 1980) in the instant docket which *inter alia*, amended and issued in final form the interim regulation in § 270.204. In response to comments questioning the relationship of the interim regulation to determination of maximum lawful prices under the NGPA, the Commission clarified that the maximum lawful price for first sales of natural gas is determined by adjusting the results obtained under the test conditions set forth in § 270.204 to reflect the actual Btu content of the gas at delivery conditions (Btu rule). This interpretation applied to both the interim regulation and the final rule.

On April 24, 1981, the Commission issued Order No. 93-A (46 *Fed. Reg.* 24537, May 1, 1981) which denied rehearing. The order explained in more detail the Commission's rationale for adopting the Btu rule. The Commission again stated that under the interim rule, effective December 1, 1978, as well as the final rule, the maximum lawful price for first sales of natural gas is to be determined on the basis of the number of Btu's actually delivered and that the test results obtained pursuant to § 270.204 are to be adjusted accordingly.

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fective date issue. This order is essentially the result of a reconsideration, on the Commission's own motion, of the denial of rehearing. Because the Commission merely reaffirms its prior orders, rehearing of this order is not a prerequisite for judicial review.

Subsequently, several applications for rehearing and stay of Order No. 93-A were filed. The applications objected to the December 1, 1978, effective date of the Btu rule. On July 30, 1981, the Commission denied the petitions for rehearing and stay.

On August 20, 1981, the Commission vacated its July 30 order denying rehearing and stay and granted a stay of the effectiveness of the Btu rule for the period December 1, 1978, to April 24, 1981. The Commission stated therein that it would reconsider the December 1, 1978, effective date.

Numerous petitions for review had been filed in the United States Court of Appeals for the District of Columbia Circuit after rehearing was denied in Order No. 93-A and the July 30 order. For this reason, the order vacating the order denying rehearing and granting a partial stay was made subject to the Court's approval and the Commission sought remand of the record. On September 17, 1981, the court remanded the record.[2]

## II. COMMISSION DECISION

In implementing the NGPA, the Commission has required that maximum lawful prices "per MMBtu" be determined on the basis of the MMBtu's actually delivered in a first sale. That requirement is not at issue here. The only question now before the Commission is whether the December 1, 1978, effective date is appropriate. The Commission believes that it is.

Prior to the Commission's clarification in Order No. 93 of the relationship of the test conditions outlined in § 270.204 to the determination of maximum lawful prices, the record indicates there was some confusion in the natural gas industry on the issue of whether the

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[2] This order resolves the issue before the Commission. Therefore, the Solicitor is directed to transmit a copy of this order to the United States Court of Appeals for the District of Columbia Circuit.

test results must be adjusted in order to determine maximum lawful prices. Some producers apparently demanded that maximum lawful prices be applied to the actual Btu's delivered in a first sale.[3] On the other hand, some pipelines insisted that maximum lawful prices be applied to the Btu's determined under the standard conditions described in § 270.204, without further adjustment to reflect actual delivery conditions, which is similar to the method used to determine just and reasonable rates under the National Gas Act (15 U.S.C. §§ 717-717(w)). Thus, it does not appear from a review of the record that there was an interpretation different from the Commission's that was uniformly adopted throughout the industry. Under these circumstances, the Commission is not persuaded to change the December 1, 1978, effective date of the Btu rule, so as to impose a different interpretation for the period prior to the issuance of Order No. 93.

The Commission emphasizes, as it did in Order No. 93-A, that the Btu rule does not require that the industry change its measurement or pricing practices. Application of the Btu rule to a first sale merely determines the maximum lawful price that can be charged for natural gas under the NGPA. The rule neither alters the method called for in the contract for measuring the Btu content of a gas, nor requires payment of a price different from that provided for by the contract, as long as it is at or below the applicable maximum lawful price.

### III. AMENDMENT TO § 270.204.

The Commission is amending the language of § 270.204 of its regulations by adding a new paragraph (c) to reflect the Commission's interpretation of the NGPA and its regulations that the maximum lawful

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[3] *See, e.g.*, Joint Supplemental Comments of Indicated Producers, filed January 31, 1979, at 6; Application of Indicated Producers for Rehearing, filed February 2, 1979, at 13.

price prescribed under the NGPA for any first sale applies to the Btu's actually delivered in that sale.

In accordance with section 553(b) and (c) of the Administrative Procedure Act (5 U.S.C. § 553) (APA), the Commission finds that public notice and comment are unnecessary, because this amendment is merely a clarification and effects no substantive change in the regulations. For the same reasons, the Commission, in accordance with section 553(d) of the APA, makes the amendment effective December 1, 1978, the effective date of the interim regulation.

**THE COMMISSION ORDERS:**

For the reasons set forth above, the Commission orders:

(1) the partial stay of the Btu rule for the period December 1, 1978, to April 24, 1981, is vacated; and

(2) § 270.204 of Subpart B, Chapter I of Title 18, Code of Federal Regulations is amended as set forth below, effective December 1, 1978.

(Natural Gas Policy Act of 1978, Pub. L. No. 95-621, 92 Stat. 3350, 15 U.S.C. §§ 3301-3432.)

By the Commission.

(SEAL)

/s/ Kenneth F. Plumb,

KENNETH F. PLUMB,
Secretary

Section 270.204 is amended by adding a new paragraph (c) to read as follows:

§ 270.204 *Btu content per cubic foot of natural gas*

* * * * *

(c) *Application of the maximum lawful price.* The maximum lawful price prescribed by the NGPA and this part for any first sale of natural gas applies to the Btu's actually delivered in that first sale.

APPENDIX E

UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT

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SEPTEMBER TERM, 1982

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No. 81-1690

INTERSTATE NATURAL GAS ASSOCIATION OF AMERICA,
PETITIONER

*v.*

FEDERAL ENERGY REGULATORY COMMISSION,
RESPONDENT

MOBIL OIL CORPORATION, ET AL.,
GENERAL AMERICAN OIL COMPANY OF TEXAS,
PHILLIPS PETROLEUM COMPANY,
PENNZOIL COMPANY,
MISSISSIPPI RIVER TRANSMISSION CORP.,
SHELL OIL COMPANY,
EXXON CORPORATION,
LACLEDE GAS COMPANY,
GETTY OIL COMPANY,
LOUISIANA LAND & EXPLORATION COMPANY,
ASSOCIATED GAS DISTRIBUTORS,
NORTHERN NATURAL GAS COMPANY,
TEXAS GAS TRANSMISSION CORPORATION,
TEXACO, INC.,
TENNECO OIL COMPANY,
HOUSTON OIL AND MINERALS CORPORATION,
GULF OIL CORPORATION,
PLACID OIL COMPANY,
AMINOIL, USA, INC., ET AL., INTERVENORS

No. 81-1680

MICHIGAN WISCONSIN PIPELINE COMPANY,
PETITIONER

*v.*

FEDERAL ENERGY REGULATORY COMMISSION,
RESPONDENT

MOBIL OIL CORPORATION, ET AL.,
AMOCO PRODUCTION COMPANY,
GENERAL AMERICAN OIL COMPANY OF TEXAS,
PHILLIPS PETROLEUM COMPANY,
PENNZOIL COMPANY,
EXXON CORPORATION,
SHELL OIL COMPANY,
TENNECO OIL COMPANY,
UNION OIL COMPANY OF CALIFORNIA,
LOUISIANA LAND & EXPLORATION COMPANY,
GETTY OIL COMPANY,
ASSOCIATED GAS DISTRIBUTORS,
LACLEDE GAS COMPANY,
SUN OIL COMPANY,
ARCO OIL & GAS COMPANY,
PLACID OIL COMPANY,
TEXACO, INC.,
GULF OIL CORPORATION, INTERVENORS

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No. 81-1691

TRANSCONTINENTAL GAS PIPE LINE CORPORATION,
PETITIONER

*v.*

FEDERAL ENERGY REGULATORY COMMISSION,
RESPONDENT

MOBIL OIL CORPORATION,
GENERAL AMERICAN OIL COMPANY OF TEXAS,
PHILLIPS PETROLEUM COMPANY,
PENNZOIL COMPANY,
SHELL OIL COMPANY,

ASSOCIATED GAS DISTRIBUTORS,
GETTY OIL COMPANY,
LOUISIANA LAND & EXPLORATION COMPANY
TEXACO, INC.,
EXXON CORPORATION,
SUN OIL COMPANY,
TENNECO OIL COMPANY,
HOUSTON OIL AND MINERALS CORPORATION,
GULF OIL CORPORATION,
PLACID OIL COMPANY, INTERVENORS

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No. 81-1692

NATURAL GAS PIPELINE COMPANY OF AMERICA,
PETITIONER

*v.*

FEDERAL ENERGY REGULATORY COMMISSION,
RESPONDENT
MOBIL OIL CORPORATION, ET AL.,
GENERAL AMERICAN OIL COMPANY OF TEXAS,
PHILLIPS PETROLEUM COMPANY,
PENNZOIL COMPANY,
SHELL OIL COMPANY,
LACLEDE GAS COMPANY,
ASSOCIATED GAS DISTRIBUTORS,
GETTY OIL COMPANY,
LOUISIANA LAND & EXPLORATION COMPANY,
TEXACO, INC.,
SUN OIL COMPANY,
CHEVRON, USA,
EXXON CORPORATION,
TENNECO OIL COMPANY,
HOUSTON OIL AND MINERALS CORPORATION,
GULF OIL CORPORATION,
PLACID OIL COMPANY, INTERVENORS

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No. 81-1696

LONE STAR GAS COMPANY, PETITIONER

*v.*

FEDERAL ENERGY REGULATORY COMMISSION,
RESPONDENT
GENERAL AMERICAN OIL COMPANY OF TEXAS,
PHILLIPS PETROLEUM COMPANY,
PENNZOIL COMPANY,
SHELL OIL COMPANY,
LACLEDE GAS COMPANY,
LOUISIANA LAND & EXPLORATION COMPANY,
GETTY OIL COMPANY,
ASSOCIATED GAS DISTRIBUTORS,
VALERO TRANSMISSION COMPANY,
TEXACO, INC.,
EXXON CORPORATION,
SUN OIL COMPANY,
TENNECO OIL COMPANY,
HOUSTON OIL AND MINERALS CORPORATION,
GULF OIL CORPORATION,
PLACID OIL COMPANY,
PANHANDLE EASTERN PIPE LINE CO., ET AL.,
INTERVENORS

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No. 81-1802

LACLEDE GAS COMPANY, PETITIONER

*v.*

FEDERAL ENERGY REGULATORY COMMISSION,
RESPONDENT

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No. 82-1004

LONE STAR GAS COMPANY, PETITIONER

*v.*

FEDERAL ENERGY REGULATORY COMMISSION,
RESPONDENT

EXXON CORPORATION,
CONOCO INC.,
GENERAL AMERICAN OIL COMPANY OF TEXAS,
PENNZOIL COMPANY,
TENNECO OIL COMPANY,

UNION OIL CO. OF CALIFORNIA,
GETTY OIL COMPANY,
AMINOIL USA, INC.,
GULF OIL CORPORATION,
TEXACO, INC.,
MOBIL OIL CORPORATION, ET AL.,
HOUSTON OIL AND MINERALS CORPORATION,
SHELL OIL COMPANY,
ATLANTIC RICHFIELD COMPANY,
SUN EXPLORATION AND PRODUCTION CO.,
INTERVENORS

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No. 82-1177

ASSOCIATED GAS DISTRIBUTORS, PETITIONER

*v.*

FEDERAL ENERGY REGULATORY COMMISSION,
RESPONDENT

UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT

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SEPTEMBER TERM, 19

No.

Petition for Review of Orders of the Federal Energy Regulatory Commission

Before: Robinson, Chief Judge, Mikva and Scalia, Circuit Judges

**JUDGMENT**

These causes came on to be heard on a petition for review of orders of the Federal Energy Regulatory Commission, and were argued by counsel. On consideration of the foregoing, it is

ORDERED, by this Court, that the petition for review filed herein by Lone Star Gas Company, designated appeal No. 81-1696, is dismissed for lack of jurisdiction. And it is further

ORDERED and ADJUDGED, by this Court, that the final rule of the Federal Energy Regulatory Commission, being reviewed herein, is vacated. Both the dismissal of the petition for review in appeal No. 81-1696 and the vacation of the final rule on review herein are in accordance with the opinion for the Court filed herein this date.

PER CURIAM
FOR THE COURT
/S/ _____
GEORGE A. FISHER
*Clerk*

Date: August 9, 1983.
Opinion for the Court filed by Circuit Judge Mikva.

A true copy:

Test: George A. Fisher
United States Court of Appeals
for the District of Columbia Circuit
By:_____ Deputy Clerk

APPENDIX F

# UNITED STATES COURT OF APPEALS FOR THE DISTRICT OF COLUMBIA CIRCUIT

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SEPTEMBER TERM, 1983

No. 81-1690

Filed: Oct. 19, 1983

INTERSTATE NATURAL GAS ASSOCIATION OF AMERICA, PETITIONER

*v.*

FEDERAL ENERGY REGULATORY COMMISSION, RESPONDENT

MOBIL OIL CORPORATION. ET AL.
GENERAL AMERICAN OIL COMPANY OF TEXAS ET AL., INTERVENORS
AND CONSOLIDATED CASES

BEFORE: Robinson, Chief Judge, Mikva and Scalia, Circuit Judges

ORDER

On consideration of the Petitions for Rehearing of Shell Oil Company and Texaco, Inc., Exxon Corporation, et al., Producers Amoco Production Co. et al. and Respondent Federal Energy Regulatory Commission, it is

ORDERED by the Court that the Petitions for Rehearing are denied.

*Per Curiam*

*For The Court:*

/s/ _____
GEORGE A. FISHER, CLERK

/S/ _____
ROBERT A. BONNER
*Chief Deputy Clerk*

UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT

SEPTEMBER TERM, 1983

No. 81-1690

Filed: Oct. 19, 1983

INTERSTATE NATURAL GAS ASSOCIATION OF AMERICA, PETITIONER

*v.*

FEDERAL ENERGY REGULATORY COMMISSION, RESPONDENT

MOBIL OIL CORPORATION, ET AL.
GENERAL AMERICAN OIL COMPANY OF TEXAS ET AL., INTERVENORS

AND CONSOLIDATED CASES

BEFORE: Robinson, Chief Judge, Wright, Tamm, Wilkey, Wald, Mikva, Edwards, Ginsburg, Bork, Scalia and Starr, Circuit Judges

**ORDER**

The Suggestions for Rehearing *En Banc* of Shell Oil Company and Texaco, Inc., Exxon Corporation, et al., Producers Amoco Production Co. et al. and Respondent Federal Energy Regulatory Commission have been circulated to the full court and no member has requested the taking of a vote thereon. On consideration of the foregoing, it is

ORDERED by the Court en banc that the aforesaid suggestions are denied.

*Per Curaim*

FOR THE COURT:

/S/ _____
GEORGE A. FISHER
*Clerk*

/S/ _____
ROBERT A. BONNER
*Chief Deputy Clerk*

Circuit Judges Wright, Tamm, Bork and Starr did not participate in this order.

## APPENDIX G

1. The Natural Gas Policy Act of 1978, 15 U.S.C. 3301 *et seq.*, provides in pertinent part:

§ 3301. Definitions. For purposes of this Chapter

* * * * *

(30) Btu

The term "Btu" means British thermal unit.

* * * * *

§ 3312. Ceiling price for new natural gas and certain natural gas produced from the Outer Continental Shelf

(a) Application

The maximum lawful price computed under subsection (b) of this section shall apply to any first sale of natural gas delivered during any month in the case of—

(1) new natural gas; and

(2) natural gas produced from any old lease on the Outer Continental Shelf and qualifying under subsection (d) of this section for the new natural gas ceiling price.

(b) Maximum lawful price

The maximum lawful price under this section for any month shall be—

(1) $1.75 per million Btu's, in the case of April 1977; and

(2) in the case of any month thereafter, the maximum lawful price, per million Btu's, prescribed under this subsection for the preceding month multiplied by the monthly equivalent of a factor equal to the sum of—

(A) the annual inflation adjustment factor applicable for such month; plus

(B) (i) .035, in the case of any month beginning before April 20, 1981; or

(ii) .04, in the case of any month beginning after April 20, 1981.

(c) Definition of new natural gas

(1) General rule

For the purposes of this section, the term "new natural gas" means each of the following categories of natural gas:

(A) New OCS leases

Natural gas determined in accordance with section 3413 of this title to be produced from a new lease on the Outer Continental Shelf.

(B) New onshore wells

Natural gas determined in accordance with section 3413 of this title to be produced (other than from the Outer Continental Shelf) from—

(1) any new well which is 2.5 miles or more (determined in accordance with paragraph (2)) from the nearest marker well; or

(ii) any completion location, of any new well, which is located at a depth at least 1,000 feet below the deepest completion location of each marker well within 2.5 miles (determined in accordance with paragraph (2)) of such new well.

(C) New onshore reservoirs

(i) General rule

Except as provided in clauses (ii) and (iii), natural gas determined in accordance with section 3413 of this title to be produced (other than from the Outer Continental Shelf) from a reservoir from which natural gas was not produced in commercial quantities before April 20, 1977.

(ii) Behind-the-pipe exclusion

Clause (i) shall not apply to natural gas produced from any reservoir if—

(I) the reservoir was penetrated before April 20, 1977, by an old well from which natural gas or crude oil was produced in commercial quantities (whether or not such production was from such reservoir); and

(II) natural gas could have been produced in commercial quantities from such reservoir through such old well before April 20, 1977.

(iii) Withheld gas exclusion

Clause (i) shall not apply to natural gas produced from any reservoir—

(I) if such natural gas is produced through an old well; and

(II) subject to clause (iv), suitable facilities for the production and delivery to a pipeline of such natural gas were in existence on April 20, 1977.

(iv) Emergency sale facilities

The criteria of clause (iii) (II) shall not be considered to be met by reason of the existence of production and delivery facilities which were installed to carry out sales and deliveries of natural gas—

(I) under section 6 of the Emergency Natural Gas Act of 1977; or

(II) under the emergency sale authority pursuant to Opinion 699-B issued by the Federal Power Commission under section 7(c) of the Natural Gas Act [15 U.S.C. 717f(c)].

(2) Determinations of distance

For purposes of determining the distance from any new well to any marker well—

(A) Surface location to surface location

The measurement shall be the horizontal distance from the surface location of the new well to the surface location of the marker well—

(i) in any case in which the new well meets requirements for the nondirectional drilling of wells prescribed by the appropriate State or Federal agency having regulatory jurisdiction over the drilling of such well; or

(ii) in any case in which—

(I) the surface drilling of such new well began on or after Februry 19, 1977;

(II) production of natural gas in commercial quantities began from such well before November 9, 1978; and

(III) the drilling of such well was not sub-

ject to any requirement regarding directional or nondirectional drilling, or the drilling of such well was subject to requirements regarding directional drilling but such requirements did not necessitate the obtaining of any permit or other certificate before drilling began.

(B) Completion location to surface location

In the case of any new well which is not covered by subparagraph (A), the measurements shall be the horizontal distance from—

(i) the closest point of any completion location of the new well, vertically projected to the same elevation as the surface location of the nearest marker well to

(ii) the surface location of such marker well.

(3) Determination of commercial quantities

For purposes of determining whether production of natural gas has occurred in commercial quantities under pargarph (1)(c)—

(A) a rebuttable presumption exists that production from a reservoir in commercial quantities has not occurred if natural gas has not been sold and delivered from such reservoir before April 20, 1977; and

(B) quantities of natural gas sold in interstate commerce (within the meaning of the Natural Gas Act [15 U.S.C. 717 et seq.] shall not be taken into account if such quantities were sold before November 9, 1978—

(i) under section 6 of the Emergency Natural Gas Act of 1977; or

(ii) under the emergency sale authority pursuant to Opinion 699-B issued by the Federal Power Commission under section 7(c) of the Natural Gas Act [15 U.S.C. 717(c)].

(4) New wells which are also marker wells

For purposes of applying subsection (c)(1)(B)(ii) of this section in the case of any marker well which is also a new well under section 3301(3)(B) of this title, the reference in such subsection (c)(1)(B)(ii) of

this section to the deepest completion location of any marker well shall be deemed to be a reference to any subsurface location from which natural gas was produced in commercial quantities after January 1, 1970, and before February 19, 1977.

(d) OCS gas qualifying for new natural gas ceiling price

For purposes of this section—

(1) OCS reservoirs discovered on or after July 27, 1976

Natural gas determined in accordance with section 3413 of this title to be produced from an old lease on the Outer Continental Shelf shall qualify for the new natural gas ceiling price if such natural gas is produced from a reservoir which was not discovered before July 27, 1976.

(2) Reservoirs penetrated before July 27, 1976

For purposes of paragraph (1), a reservoir shall be considered as having been discovered before July 27, 1976, if—

(A) such reservoir was penetrated by a well before July 27, 1976; if—

(B) with respect to such well—

(i) the results of any production test meeting the requirements of OCS Order No. 4 demonstrate that, as of the time of such test, the reservoir is capable of producing in paying quantities (within the meaning of such Order):

(ii) any production capability evidence meeting the requirements of OCS Order No. 4 demonstrates that, as of the time such evidence is obtained, the reservoir is capable of producing in paying quantities (within the meaning of such Order); or

(iii) subject to paragraph (3), an induction-electric log, sidewall cores and core analysis, or a wire line formation test indicates that, as of the time of such test, the reservoir is commercially producible.

(3) Effect of negative production capability tests

For purposes of paragraph (1), a reservoir shall not be considered as having been discovered before July 27, 1976, by the penetration of such reservoir by a well before July 27, 1976, if, with respect to such well—

(A) a production test meeting the requirements of OCS Order No. 4 was performed and the results of such test fail to demonstrate that, as of the time of such test, such reservior[1] was capable of producing in paying quantities (within the meaning of such Order; and

(B) production capability evidence meeting the requirements of OCS Order No. 4 does not exist or, if existing, does not demonstrate that, as of the date such evidence was obtained, such reservoir was capable of producing in paying quantities (within the meaning of such Order).

(4) Burden of proof

For purposes of paragraph (1), the producer shall have the burden of showing that—

(A) no test described in paragraph (2)(B)(i) or (iii) was performed and no evidence described in paragraph (2)(B)(ii) or (iii) exists; or

(B) if any such test was performed or such evidence exists, the results of such test or such evidence do not provide the applicable demonstration or indication specified under paragraph (2).

(5) Definition of OCS Order No. 4

For purposes of this subection, the term "OCS Order No. 4" means the order numbered 4 of the Conservation Division, Geological Survey, Department of the Interior, as approved by the Chief of the Conservation Division on August 28, 1969.

(e) Exclusion of certain Alaska natural gas

The preceding provisions of this section shall not apply to any natural gas produced from the Prudhoe Bay Unit of Alaska and transported through the natural gas transportation system approved under the

[1] So in original. Probably should be "reservoir".

Alaska Natural Gas Transportation Act of 1976 [15 U.S.C. 719 et seq.].

(Pub. L. 95-621, title I, § 102, Nov. 9, 1978, 92 Stat. 3358.)

§ 3313. Ceiling price for new, onshore production wells

(a) Application

In the case of natural gas determined in accordance with section 3413 of this title to be produced from any new, onshore production well, the maximum lawful price computed under subsection (b) of this section shall apply to any first sale of such natural gas delivered during any month.

(b) Maximum lawful price

(1) General rule

The maximum lawful price under this section for any month shall be—

(A) $1.75 per million Btu's, in the case of April 1977; and

(B) in the case of any month thereafter, the maximum lawful price, per million Btu's, prescribed under this paragraph for the preceding month multiplied by the monthly equivalent of the annual inflation adjustment factor applicable for such month.

(2) Production after 1984 from wells 5,000 feet or less in depth

Effective beginning with the month of January 1985 and in any month thereafter, in the case of any first sale of natural gas which was not committed or dedicated to interstate commerce on April 20, 1977, and which is produced from a new, onshore production well from a completion location located at a depth of 5,000 feet or less, the maximum lawful price under this section for any such natural gas delivered during any month shall be a price which is midway between—

(A) the maximum lawful price, per million Btu's, computed for such month under section

3312 of this title (relating to new natural gas); and

(B) the maximum lawful price, per million Btu's, computed for such month under paragraph (1).

(c) Definition of new, onshore production well

For purposes of this section, the term "new, onshore production well" means any new well (other than a well located on the Outer Continental Shelf)—

(1) the surface drilling of which began on or after February 19, 1977;

(2) Which satisfies applicable Federal or State well-spacing requirements, if any; and

(3) which is not within a proration unit—

(A) which was in existence at the time the surface drilling of such well began;

(B) which was applicable to the reservoir from which such natural gas is produced; and

(C) which applied to a well (i) which produced natural gas in commercial quantities or (ii) the surface drilling of which was begun before February 19, 1977, and which was thereafter capable of producing natural gas in commercial quantities.

(d) Exclusion of certain Alaska natural gas

The preceding provisions of this section shall not apply to any natural gas produced from the Prudhoe Bay Unit of Alaska and transported through the natural gas transportation system approved under the Alaska Natural Gas Transportation Act of 1976 [15 U.S.C. 719 et seq.].

(Pub. L. 95-621, title I, § 103, Nov. 9, 1978, 92 Stat. 3361.)

§ 3314. Ceiling price for sales of natural gas dedicated to interstate commerce

(a) Application

In the case of natural gas committed or dedicated to interstate commerce on November 8, 1978, and for which a just and reasonable rate under the Natural Gas Act [15 U.S.C. 717 et seq.] was in effect on such

date for the first sale of such natural gas, the maximum lawful price computed under subsection (b) of this section shall apply to any first sale of such natural gas delivered during any month.

(b) Maximum lawful price

(1) General rule

The maximum lawful price under this section for any month shall be the higher of—

(A)(i) the just and reasonable rate, per million Btu's, established by the Commission which was (or would have been) applicable to the first sale of such natural gas on April 20, 1977, in the case of April 1977; and

(ii) in the case of any month thereafter the maximum lawful price, per million Btu's, prescribed under this subparagraph for the preceding month multiplied by the monthly equivalent of the annual inflation adjustment factor applicable for such month, or

(B) any just and reasonable rate which was established by the Commission after April 27, 1977, and before November 9, 1978 and which is applicable to such natural gas.

(2) Ceiling prices may be increased if just and reasonable

The Commission may, by rule or order, prescribe a maximum lawful ceiling price, applicable to any first sale of any natural gas (or category thereof, as determined by the Commission) otherwise subject to the preceding provisions of this section, if such price is—

(A) higher than the maximum law price which would otherwise be applicable under such provisions; and

(B) just and reasonable within the meaning of the Natural Gas Act [15 U.S.C. 717 et seq.].

(Pub. L. 95-621, title I, § 104, Nov. 9, 1978, 92 Stat. 3362.)

§3315. Ceiling price for sales under existing intrastate contracts

(a) Application

The maximum lawful price computed under subsection (b) of this section shall apply to any first sale of natural gas delivered during any month in the case of natural gas, sold under any existing contract or any successor to an existing contract, which was not committed or dedicated to interstate commerce on November 8, 1978.

(b) Maximum lawful price

(1) General rule

Subject to paragraphs (2) and (3), the maximum lawful price under this section shall be the lower of—

(A) the price under the terms of th eexisting contract, to which such natural gas was subject on November 9, 1978, as such contract was in effect on such date; or

(B) the maximum lawful price, per million Btu's, computed for such month under section 3312 of this title (relating to new natural gas).

(2) Contract price exceeding new gas ceiling price on November 9, 1978

In the case of any natural gas described in subsection (a) of this section for which the contract price applicable on November 9, 1978, exceeds the maximum lawful price, per million Btu's, computed for such date under section 3312 of this title (relating to new natural gas), the maximum lawful price under this section shall be the higher of—

(A) the maximum lawful price, per million Btu's, computed for such month under section 3312 of this title; or

(B)(i) the contact[1] price on November 9, 1978, in the case of November, 1978; and

(ii) in the case of any month thereafter, the maximum lawful price, per million Btu's, pre-

[1] So in original. Probably should be "contract".

scribed under this subparagraph for the preceding month multiplied by the monthly equivalent of the annual inflation adjustment factor applicable for such month.

(3) Price increases resulting from indefinite price escalator clauses

(A) In general

Effective January 1985, and each month thereafter, in the case of any first sale of natural gas, which is sold at a price established under any indefinite price escalator clause of any existing contract or successor to an existing contract and for which the contract price on December 31, 1984, is higher than $1.00 per million Btu's, the maximum lawful price under this section for any such natural gas delivered during any month shall be the higher of—

(i) the maximum lawful price, per million Btu's, computed under paragraph (2)(B); or

(ii)(I) in the case of January 1985, the maximum lawful price, per million Btu's, computed under section 3312 of this title (relating to new natural gas) for such month; and

(II) in the case of any month thereafter, the maximum lawful price, per million Btu's, prescribed under this clause for the immediately preceding month multiplied by the monthly equivalent of the sum of a factor equal to the annual inflation adjustment factor applicable for such month plus .03.

(B) Definition of indefinite price escalator clause

For purposes of this paragraph, the term "indefinite price escalator clause" includes any provision of any contract—

(i) which provides for the establishment or adjustment of the price for natural gas delivered under such contract by reference to other prices for natural gas, for crude oil, or for refined petroleum products; or

(ii) which allows for the establishment or adjustment of the price of natural gas delivered

under such contract by negotiation between the parties.

(C) Contract modifications after May 3, 1978, to be disregarded

In the case of any natural gas which was subject to any contract on May 3, 1978, that contained an indefinite price escalator clause on such date, no amendment to or modification of the operation of such contract made after such date may have the effect of limiting or precluding the application of this paragraph on or after January 1, 1985, to prices allowed with respect to such natural gas.

(D) Exclusion

Subparagraph (A) shall not apply to any first sale of new natural gas (as defined in section 3312(c) of this title), stripper well natural gas (as defined in section 3318(b) of this title), high-cost natural gas (as defined in section 3317(c) of this title), natural gas produced from a new, onshore production well (as defined in section 3313(c) of this title) from a completion location located at a depth of more than 5,000 feet, and, beginning July 1, 1987, or, if later, the date of expiration of any price controls reimposed under section 3332 of this title, natural gas produced from any new, onshore production well (as defined in section 3313(c) of this title) from a completion location located at a depth of 5,000 feet or less.

(c) Definition of contract price

For purposes of this section, the term "contract price", when used with respect to any specific date, means—

(1) the price paid, per million Btu's, under a contract for deliveries of natural gas occuring on such date; or

(2) if no deliveries of natural gas occurred under such contract on such date, the price, per million Btu's, that would have been paid had such deliveries occurred on such date.

(Pub. L. 95-621, title I, § 105, Nov. 9, 1978, 92 Stat. 3363.)

§ 3316. Ceiling price for sales under rollover contracts

(a) Interstate rollover contracts

In the case of any first sale under any rollover contract of natural gas which was committed or dedicated to interstate commerce on November 8, 1978, the maximum lawful rice under this subsection for such natural gas delivered during any month shall be the higher of—

(1)(A) in the case of the month in which the effective date of such rollover contract occurs, the just and reasonable rate, if any, per million Btu's, established by the Commission and applicable on such date to the natural gas subject to the expired contract; and

(B) in the case of any month thereafter, the maximum lawful price, per million Btu's, prescribed under this paragraph for the preceding month multiplied by the monthly equivalent of the annual inflation adjustment factor applicable for such month; or

(2)(A) $0.54 per million Btu's, in the case of April 1977; and

(B) in the case of any month thereafter, the maximum lawful price, per million Btu's, prescribed under this paragraph for the preceding month multiplied by the monthly equivalent of the annual inflation adjustment factor applicable for such month. For purposes of this subsection, the term "rollover contract" includes any contract which would have been a rollover contract but for the fact that the expiration of the previous contract occurred prior to November 8, 1978.

(b) Intrastate rollover contracts

(1) General rule

In the case of any first sale under any rollover contract of natural gas which was not committed or dedicated to interstate commerce on November 8,

1978, the maximum lawful price under this subsection for such natural gas delivered during any month shall be the higher of—

(A)(i) the maximum price paid under the expired contract, per million Btu's, in the case of the month in which the effective date of such rollover contract occurs; and

(ii) in the case of any month thereafter, the maximum lawful price, per million Btu's, prescribed under this subparagraph for the preceding month multiplied by the monthly equivalent of the annual inflation adjustment factor applicable for such month; or

(B)(i) $1.00 per million Btu's, in the case of April 1977; and

(ii) in the case of any month thereafter, the maximum lawful price, per million Btu's, prescribed under this subparagraph for the preceding month multiplied by the monthly equivalent of the annual inflation adjustment factor applicable for such month.

(2) Certain State or Indian production or royalty shares

(A) General rule

In the case of any first sale under any rollover contract of natural gas which was not committed or dedicated to interstate commerce on November 8, 1978, and which constitutes a State government's or Indian tribe's natural gas production, or royalty share or other interest (as of such day) in natural gas production, from real property (including subsurface mineral interests) owned on November 9, 1978, by such State government or Indian tribe (as the case may be), the maximum lawful price under this subsection for any such natural gas delivered during any month shall be the maximum lawful price, per million Btu's, computed for such month under section 3312 of this title (relating to new natural gas).

(B) Indian tribal lands

For purposes of this paragraph, land shall be considered to be owned by an Indian tribe only if—

(i) such land is owned directly by such tribe; or

(ii) such land is held by the United States or any State in trust for Indian persons and is located within the boundaries of an Indian reservation (as such boundaries were in effect on November 9, 1978).

(C) Definitions

For purposes of this paragraph—

(i) State government

The term "State government" means any State or any agency, instrumentality or political subdivision of a State.

(ii) Indian tribe

The term "Indian tribe" means any Indian tribe recognized as eligible for services provided by the Secretary of the Interior to Indians.

(c) Ceiling prices may be increased if just and reasonable

The Commission may, by rule or order, prescribe a maximum lawful price, applicable to any first sale of any natural gas (or category thereof, as determined by the Commission) otherwise subject to the preceding provisions of this section, if such price is—

(1) higher than the maximum lawful price which would otherwise be applicable under such provisions; and

(2) just and reasonable within the meaning of the Natural Gas Act [15 U.S.C. 717 et seq.].

(Pub. L. 95-621, title I, § 106, Nov. 9, 1978, 92 Stat. 3365.)

§ 3317. Ceiling price for high-cost natural gas

(a) Wells completed below 15,000 feet

In the case of any first sale of high-cost natural gas produced from any well the surface drilling of which began on or after February 19, 1977, if such production is from any completion location which is located

at a depth of more than 15,000 feet, the maximum lawful price under this section for such natural gas delivered during any month shall be the maximum lawful price, per million Btu's, computed for such month under section 3312 of this title (relating to new natural gas).

(b) Commission authority to prescribe higher incentive prices

The Commission may, by rule or order, prescribe a maximum lawful price, applicable to any first sale of any high-cost natural gas, which exceeds the otherwise aplicable maximum lawful price to the extent that such special price is necessary to provide reasonable incentives for the production of such high-cost natural gas.

(c) Definition of high-cost natural gas

For purposes of this section, the term "high-cost natural gas" means natural gas determined in accordance with section 3413 of this title to be—

(1) produced from any well the surface drilling of which began on or after February 19, 1977, if such production is from a completion location which is located at a depth of more than 15,000 feet;

(2) produced from geopressured brine:

(3) occluded natural gas produced from coal seams;

(4) produced from Devonian shale; and

(5) produced under such other conditions as the Commission determines to present extraordinary risks or costs.

(d) Provisions for high-cost natural gas to be elective elective

If any credit, exemption, deduction, or comparable adjustment applicable to the computation of any Federal tax is specifically allowable with respect to any high-cost natural gas (or category thereof) under any provision of law enacted after November 9, 1978, the provisions of subsections (a) and (b) of this section and the provisions of part B of this subchapter shall not apply to such natural gas produced from any well

unless an election to have such provisions apply (in lieu of such credit, exemption, deduction, or adjustment) with respect to such natural gas produced from such well is filed with the Commission on or before the later of—

(A) the 30th day after November 9, 1978, under which such credit, exemption, deduction, or adjustment is provided; or

(B) the date the surface drilling of such well began. (Pub. L. 95-621, title I. § 107, Nov. 9, 1978, 92 Stat. 3366.)

§ 3318. Ceiling price for stripper well natural gas

(a) General rule

In the case of any first sale of stripper well natural gas the maximum lawful price under this section for such natural gas delivered during any month shall be—

(1) $2.09 per million Btu's, in the case of May 1978; and

(2) in the case of any month thereafter, the maximum lawful price, per million Btu's, prescribed under this subsection for the preceding month multiplied by the monthly equivalent of a factor equal to the sum of—

(A) the annual inflation adjustment factor applicable for such month; plus

(B)(i) .035, in the case of any month beginning before April 20, 1981; or

(ii) .04, in the case of any month beginning after April 20, 1981.

(b) Definition of stripper well natural gas

(1) General rule

Except as provided in paragraph (2), the term "stripper well natural gas"means natural gas determined in accordance with section 3413 of this title to be nonassociated natural gas produced during any month from a well if—

(A) during the preceding 90-day production period, such well produced nonassociated natural gas at a rate which did not exceed an average of

60 Mcf per production day during such period; and

(B) during such period such well produced at its maximum efficient rate of flow, determined in accordance with recognized conservation practices designed to maximize the ultimate recovery of natural gas.

(2) Production in excess of 60 Mcf

The Commission shall, by rule, provide that, if nonassociated natural gas produced from a well which previously qualified as a stripper well under paragraph (1) exceeds an average of 60 Mcf per production day during any 90-day production period, such natural gas may continue to qualify as stripper well natural gas if the increase in nonassociated natural gas produced from such well was the result of the application of recognized enhanced recovery techniques.

(3) Definitions

For purposes of this subsection—

(A) Production day

The term "production day" means—

(i) any day during which natural gas is produced; and

(ii) any day during which natural gas is not produced if production during such day is prohibited by a requirement of State law or a conservation practice recognized or approved by the State agency having regulatory jurisdiction over the production of natural gas.

(B) 90-day production period

The term "90-day production period" means any period of 90 consecutive calendar days excluding any day during which natural gas is not produced for reasons other than voluntary action of any person with the right to control production of natural gas from such well.

(C) Nonassociated natural gas

The term "nonassociated natural gas" means natural gas which is not produced in association with crude oil.

(Pub. L. 95-621, title I, § 108, Nov. 9, 1978. 92 Stat. 3367.)

§ 3319. Ceiling price for other categories of natural gas

(a) Application

The maximum lawful price computed under subsection (b) of this section shall apply to any first sale of any natural gas delivered during any month, in the case of any natural gas which is not covered by any maximum lawful price under any other section of this part, including—

(1) natural gas produced from any new well not otherwise qualifying for a higher maximum lawful price under this subchapter;

(2) natural gas committed or dedicated to interstate commerce on November 8, 1978, and for which a just and reasonable rate under the Natural Gas Act [15 U.S.C. 717 et seq.] was not in effect on such date for the first sale of such natural gas;

(3) natural gas which was not committed or dedicated to interstate commerce on November 8, 1978, and which was not subject to an existing contract on such day; and

(4) natural gas produced from the Prudhoe Bay Unit of Alaska and transported through the natural gas transportation system aproved under the Alaska Natural Gas Transortation Act of 1976 [15 U.S.C. 719 et seq.].

(b) Maximum lawful price

(1) The maximum lawful price under this section for any month shall be—

(A) $1.45 per million Btu's, in the case of April 1977; and

(B) in the case of any month thereafter, the maximum lawful price, per million Btu's, prescribed under this paragraph for the preceding month multiplied by the monthly equivalent of

the annual inflation adustment[1] factor applicable for such month.

(2) The Commission may, by rule or order, prescribe a maximum lawful ceiling price, applicable to any first sale of any natural gas (or category thereof, as determined by the Commission) otherwise subject to the preceding provisions of this section, if such price is—

(A) higher than the maximum lawful price which would otherwise be applicable under such provisions; and

(B) just and reasonable within the meaning of the Natural Gas Act [15 U.S.C. 717 et seq.].

(Pub. L. 95-621, title I, § 109, Nov. 9, 1978, 92 Stat. 3368.)

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§ 3411. General rulemaking authority

(a) In general

Except where expressly provided otherwise, the Commission shall administer this chapter. The Commission, or any other Federal officer or agency in which any function under this chapter is vested or delegated, is authorized to perform any and all acts (including any appropriate enforcement activity), and to prescribe, issue, amend, and rescind such rules and orders as it may find necessary or appropriate to carry out its functions under this chapter.

(b) Authority to define terms

Except where otherwise expressly provided, the Commission is authorized to define, by rule, accounting, technical, and trade terms used in this chapter. Any such definition shall be consistent with the definitions set forth in this chapter.

* * * * *

[1] So in original. Probably should be "adjustment".

2. 18 C.F.R. 270.204 provides:

§ 270.024 Btu content per cubic foot of natural gas.

(a) *Measurement.* The Btu content of one cubic foot of natural gas under the standard conditions specified in paragraph (b) of this section is the number of Btu's produced by the complete combustion of such cubic foot of gas, at constant pressure with air of the same temperature and pressure as the gas, when the products of combustion are cooled to the initial temperature of the gas and air and when the water formed by such combustion is condensed to a liquid state.

(b) *Standard conditions.* The standard conditions for purposes of paragraph (a) of this section are as follows: The gas is saturated with water vapor at 60 degrees Fahrenheit under a pressure equivalent to that of 30.00 inches of mercury at 32 degrees Fahrenheit, under standard gravitational force (980.665 centimeters per second square).

(c) *Application of the maximum lawful price.* The maximum lawful price prescribed by the NGPA and this part for any first sale of natural gas applies to the Btu's actually delivered in that first sale.